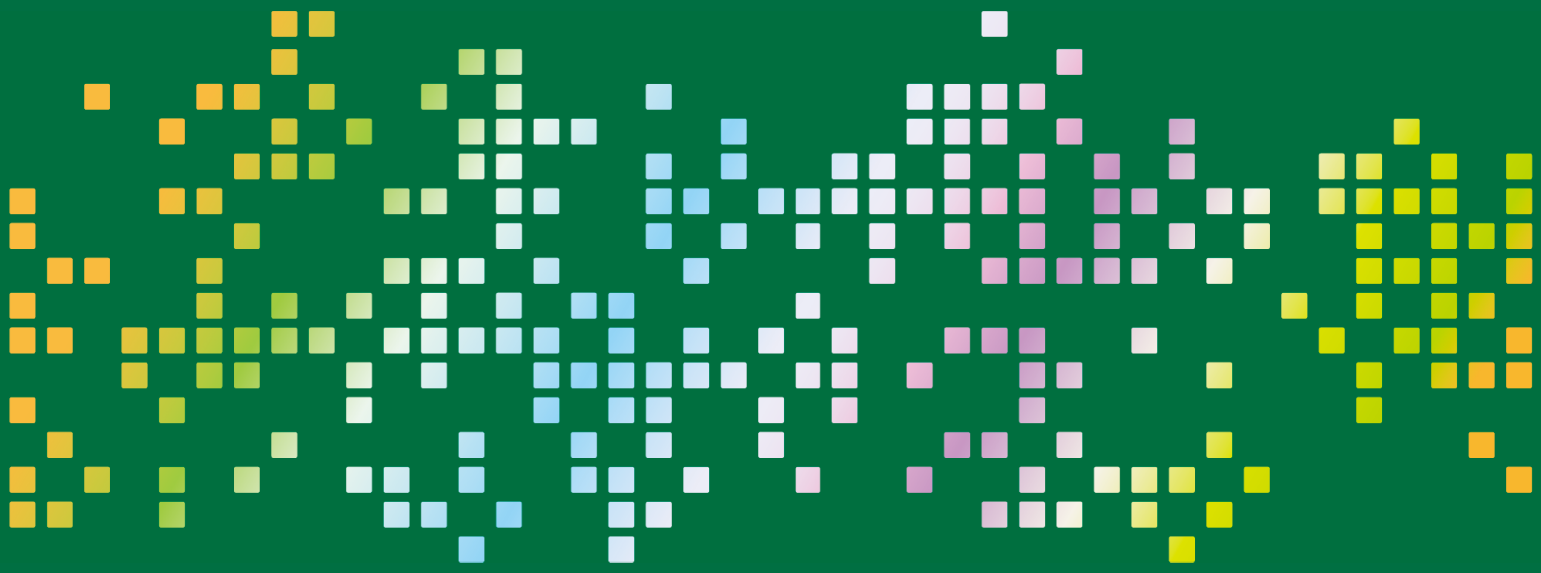
www.powermastersemi.com

POWER MASTER SEMICONDUCTOR

COMPANY PROFILE

Power Master Semiconductor provides high and medium voltage product portfolio for energy, cloud, xEV, and industrial applications.



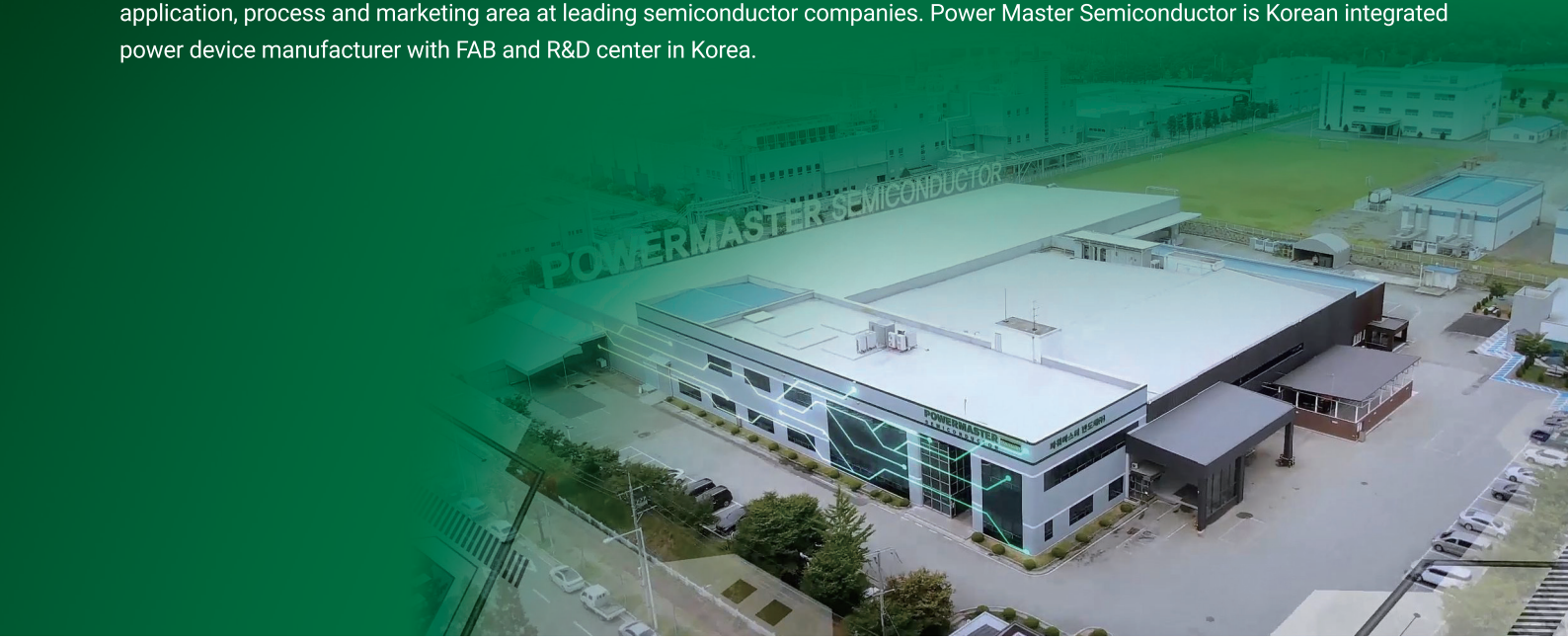
Power Master Semiconductor Co., Ltd

POWERMASTER SEMICONDUCTOR

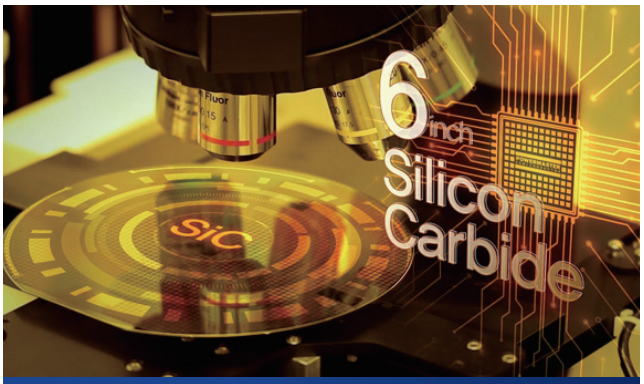
Masters of Power Solution

About Power Master Semiconductor

Power Master Semiconductor was founded in January 2018 by a group of experts with more than 20 year's experience of design, application, process and marketing area at leading semiconductor companies. Power Master Semiconductor is Korean integrated power device manufacturer with FAB and R&D center in Korea.



Power Device Technology Leadership in Korea



Silicon Carbide SiC MOSFET / SiC Diode

Silicon Super Junction MOSFET / MV MOSFET

Corporate Information

- IDM of SiC & Si Power Device : Design and Mass Production
- Employees : Approximately +250

Reliability / Failure Analysis Lab

- Reliability Lab (Automotive / Industrial Qualification)
- Established Equipment and Failure Analysis Systems
- IATF 16949, ISO 9001/14001 Certification

Product Development and Achievements

- 2021 : 650V / 1200V SiC Diode
- 2022 : 1200V SiC MOSFET G1
- 2023 : 1700V SiC Diode
  1200V SiC Diode AEC-Q101 Certified
- 2024 : 650V SiC MOSFET G1 & 1200V SiC MOSFET G2
  1200V SiC MOSFET G1 AEC-Q101 Certified
  1700V SiC MOSFET Tech
  200V Trench MOSFET

Advantages and Strengths

- Technology Leadership by Inhouse for Core Process
- World Class Failure Analysis and Application Engineering Support
- AEC-Q101 Certification of SiC Power Semiconductors
- In-house Capacity Ramp Up

Company History

To deliver SiC and Si power device solutions in power market, dominated by leading players, we will continuously develop innovative products for efficiency-driven market such as cloud, computing, server/telecom, renewable energy, industrial and electric vehicle applications.

2018
Established R&D center in Bucheon

2019
Established Fab & HQ in Cheongju
600V SJ MOSFET

2020
Set up whole SiC line

2021
650V /1200V SiC Diode

2022
Set up Reliability Lab
1200V G1 SiC MOSFET

2023
1700V SiC Diode
SiC Diode AEC-Q101 Certified

2024
Expand Capacity 6-inch line
650V G1 SiC MOSFET
1200V G2 SiC MOSFET
1200V G1 SiC MOSFET AEC-Q101 Certified
200V Trench MOSFET

2025
Set up 8-inch line
1200V Gen3 SiC Trench MOSFET
1700V Gen1 SiC MOSFET
SiC Module

Location

JiaXing, China
Package (Group Company)

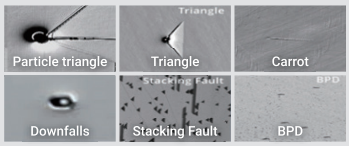
Shenzhen, China
Sales Office

Cheongju, Korea
FAB & HQ

Incheon, Korea
R&D / Sales & Marketing

SiC Quality Improvement Activities

Post Epi Scan for Quality Improvement



Substrate Scan by Supplier

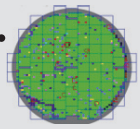
Epi

Post Epi Scan

WLBI

Wafer Process

Eliminate Killer Defects



Matching & Screen
EPI Defect MAP & EDS BIN

Screened out defect dies after EDS test

EDS

Outgoing inspection

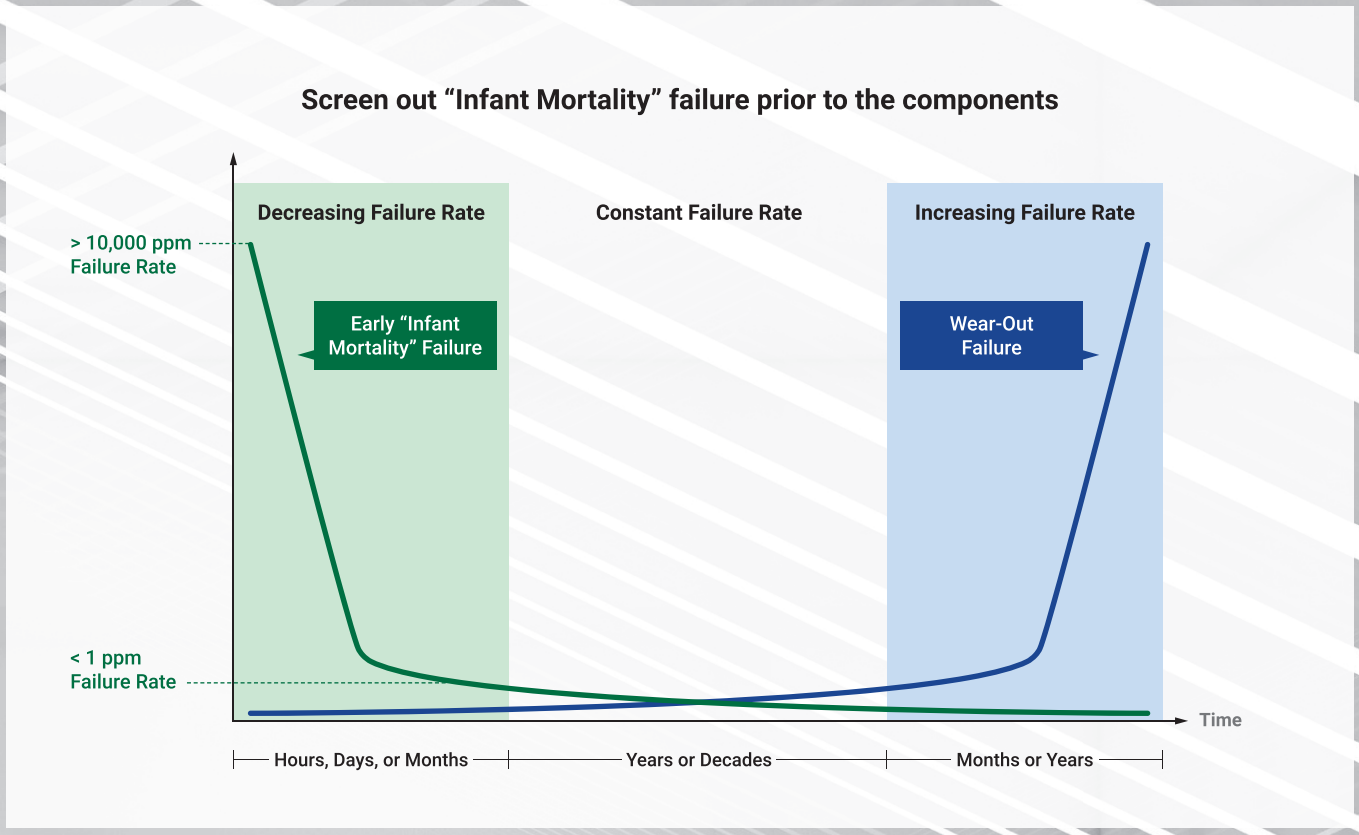
Final Test

PLBI

Package Assembly

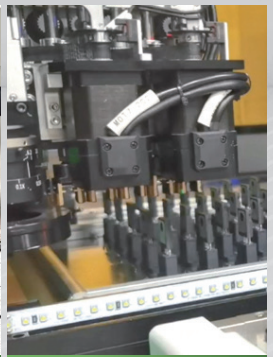
* For Burn-in test, either WLBI or PLBI is performed depending on the package and purpose.

Burn-In System for SiC MOSFET



Package Level Burn-in for SiC MOSFET Products

BI Chamber



Auto Handler

Wafer Level Burn-in for SiC MOSFET Products

Auto Loader & Wafer Level Burn-in system

Quality and Reliability Capability

Reliability Laboratory

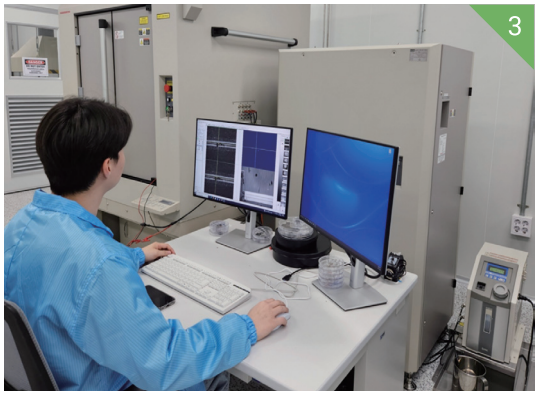
Rel Equipment	Capability
HTRB, HTGB	~200'C, ~2000V
H3TRB	85'C/85%RH, ~2000V
HAST	130'C/85%RH ~2000V
TC	-55~150C, -65~150C
HTSL/LTSL	-50~200C
THU	85'C/85%
IOL	delta Tj 100C
Reflow	260'C peak
WLR	1 wafer/once
PCT	12pcs
PLBI	2560pcs
WLBI	1350ch

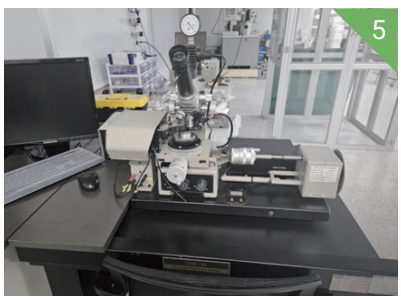
1. Monitoring all power supplies
2. Chamber Room
3. Chamber Room
4. Intelligent Chambers (HTRB/HTGB)
5. Wafer Level Reliability
6. Power Cycling Test
7. IOL Test
8. Electrical Test

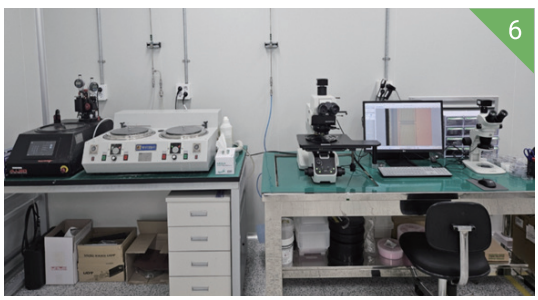
Failure Analysis Laboratory

FA Equipment
High magnification scope
Low magnification scope
Auto & Manual Grinder
Mechanical Grinder
Decap station
EMMI
SEM
FIB

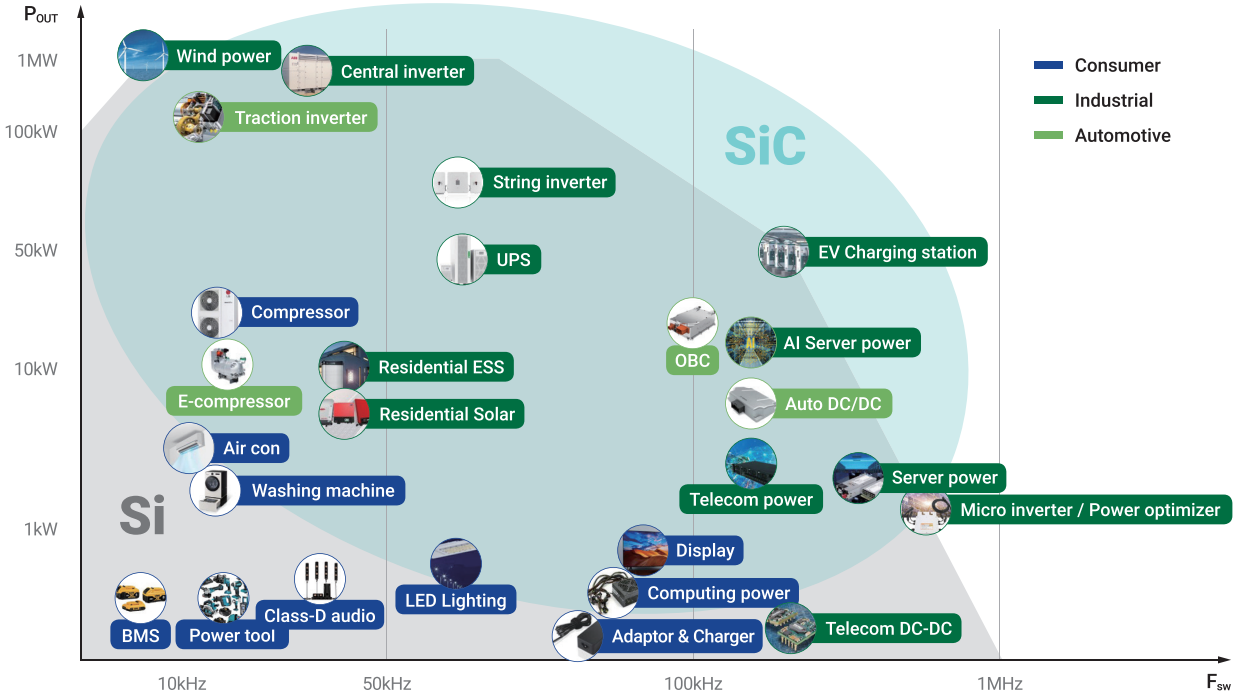
1. FA Room (Coming more systems)
2. Decapsulation Station
3. EMMI Analysis
4. SEM Analysis
5. SRP Analysis
6. Grinding / Scope





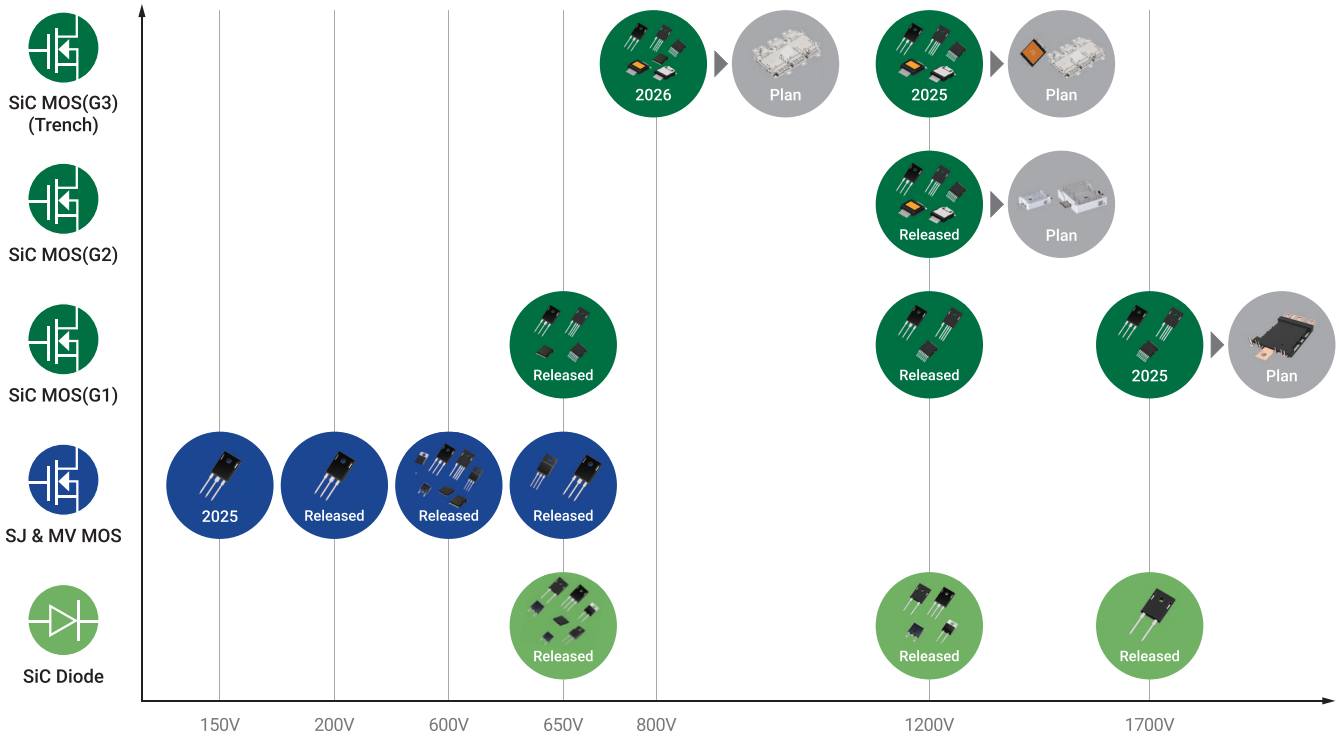


SiC & Si Applications



Product Portfolio

Power Master Semiconductor provides HV (SiC & SJ) & MV product solutions especially for energy, cloud, xEV and industrial applications.



650V Gen1 *e*SiC MOSFET

Key Features

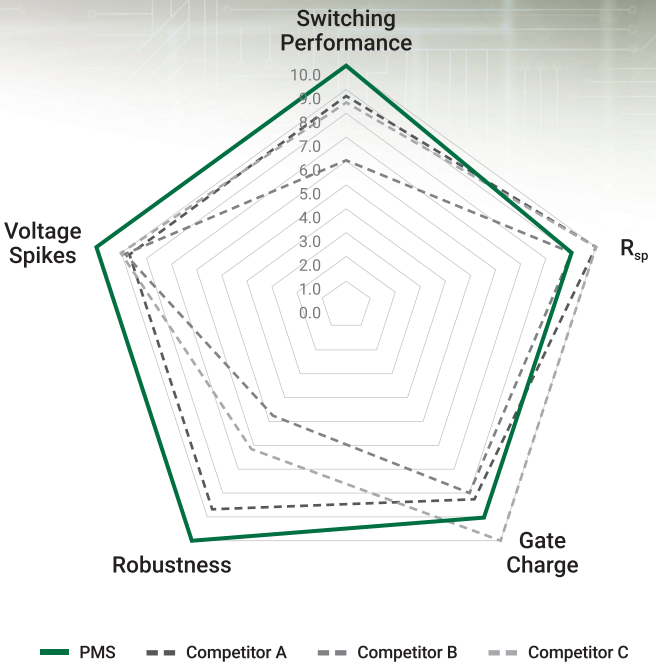
- Extremely low switching losses
- Good FOM ; Q_G x $R_{DS(ON)}$
- Fast intrinsic diode
- Robust avalanche capability

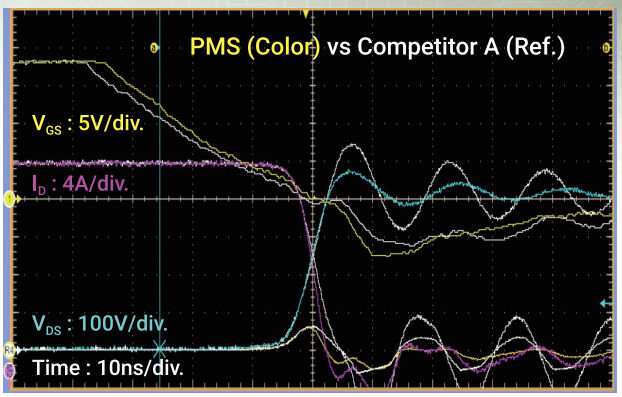
Key Benefits

- Higher system efficiency & reliability
- Reduced cooling effort
- Higher frequency applicability
- Increased power density

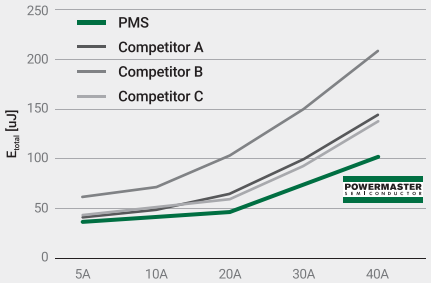
Applications

Server / Telecom | xEV | Solar | EV Charger | ESS

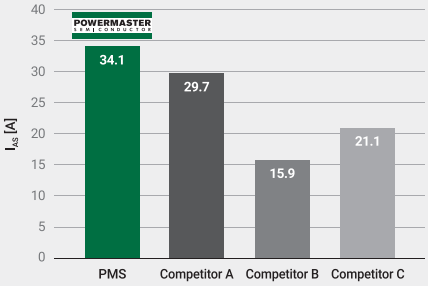




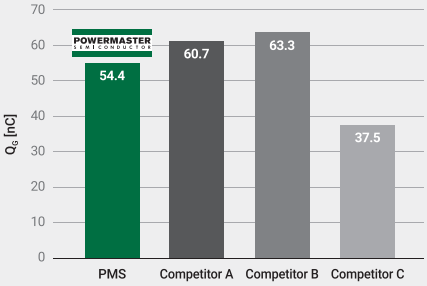
Lower Switching Spikes



Switching Losses



UIS Ruggedness



Gate Charge

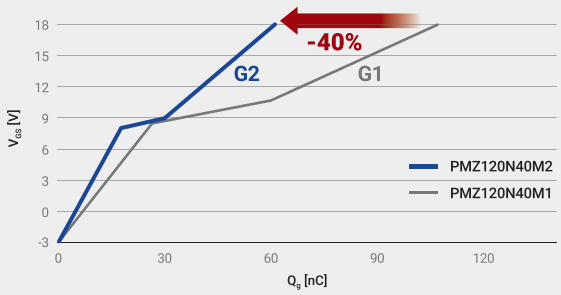
1200V Gen2 eSiC MOSFET

New
1200V Gen2
eSiC MOSFET

Key Features	Key Benefits
Improved Switching Performance	Higher System Efficiency
Improved FOM : $Q_G \times R_{DS(ON)}$, $E_{OSS} \times R_{DS(ON)}$, $Q_{OSS} \times R_{DS(ON)}$	Reduced Cooling Effort
Improved Short Circuit Capability	Better System Reliability
Top Side Cooling Package : TSPAK	Increased Power Density

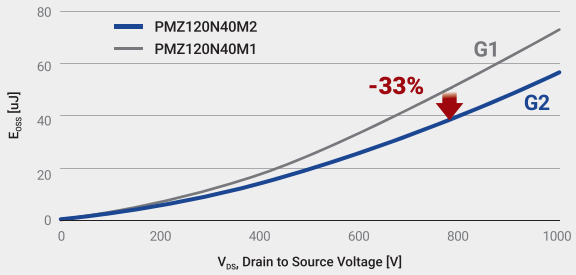
Reduced Gate Charge (Q_G)

Lower means lower switching loss & gate driving loss



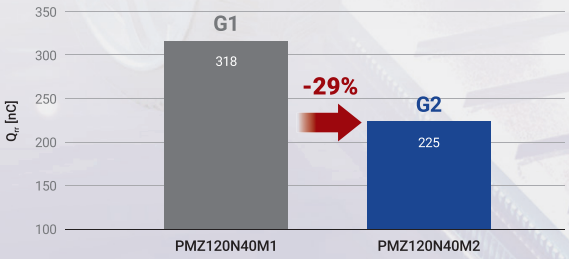
Reduced Stored Energy in C_{OSS} (E_{OSS})

Lower is better for light load efficiency



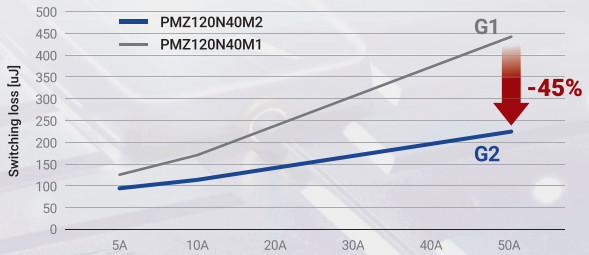
Improved Body Diode Performance

Lower is better for lower turn-on loss in
Totem pole PFC & inverter topologies



Excellent Switching Performance

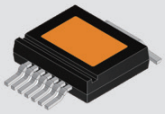
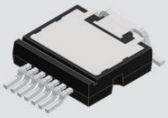
Lower is better for system efficiency



New Packages for eSiC MOSFET

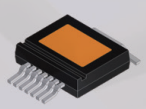
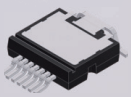
TSPAK Package

Topside Cooling Package for Automotive Applications

	Isolated design (DBC type)	Non-Isolated design (LF type)
Package		
Features	• PMS's own Patent • Isolated substrate / High dielectric strength : Easy H/S assembly with thermal grease • Design flexibility : Batter thermal performance Longer creepage distance (5.23mm) vs. Comp. • Pin-to-pin with competitor & L/F version	• PMS's own Patent • Lower package cost • High heat spread effect • Larger die size attachable than DBC version • Comparable creepage distance (4.85mm) vs. Comp. • Pin-to-pin with competitor
Benefits	• High current capability by thick wire bonding • Easy inverter replace during repair • High power density : Smaller FOM factor • Improved EMI and Easy to design	• High current capability by thick wire bonding • High power density : Smaller FOM factor • Improved EMI and Easy to design • Lower package price than DBC version

Applications

TSPAK Package Solution : 1200V Gen2 eSiC MOSFET (Automotive Grade)

PACKAGE / $R_{DS(ON)\_max}$	TSPAK-DBC	TSPAK-LF
		
21mΩ	PCRZ120N21M2A	PCR120N21M2A
40mΩ	PCRZ120N40M2A	PCR120N40M2A
65mΩ	PCRZ120N65M2A	PCR120N65M2A

650V / 1200V / 1700V *e*SiC Diode

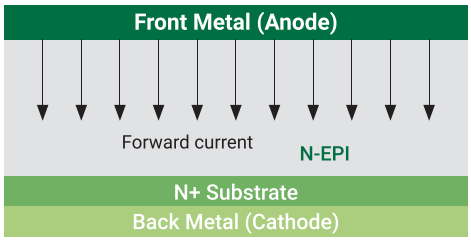
Features

- Low forward voltage
- High surge current capability
- No reverse recovery current
- 175°C Max junction temperature

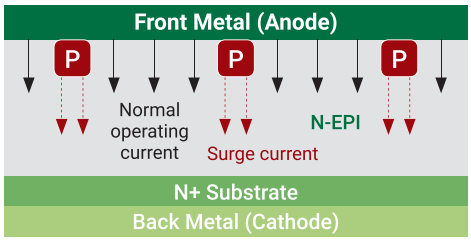
Key Benefits

- Low conduction loss
- High reliability capability
- Significant reduction of MOSFET or IGBT turn on loss
- Less power loss at high temperature

MPS (Merged PiN Schottky) Technology

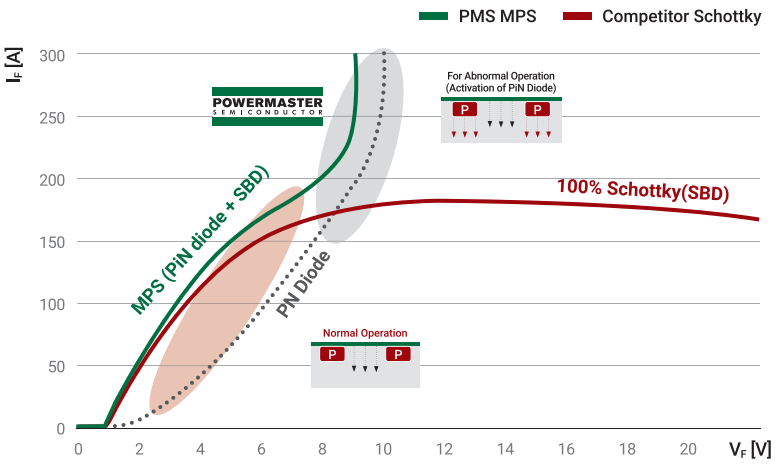


Pure Schottky Diode



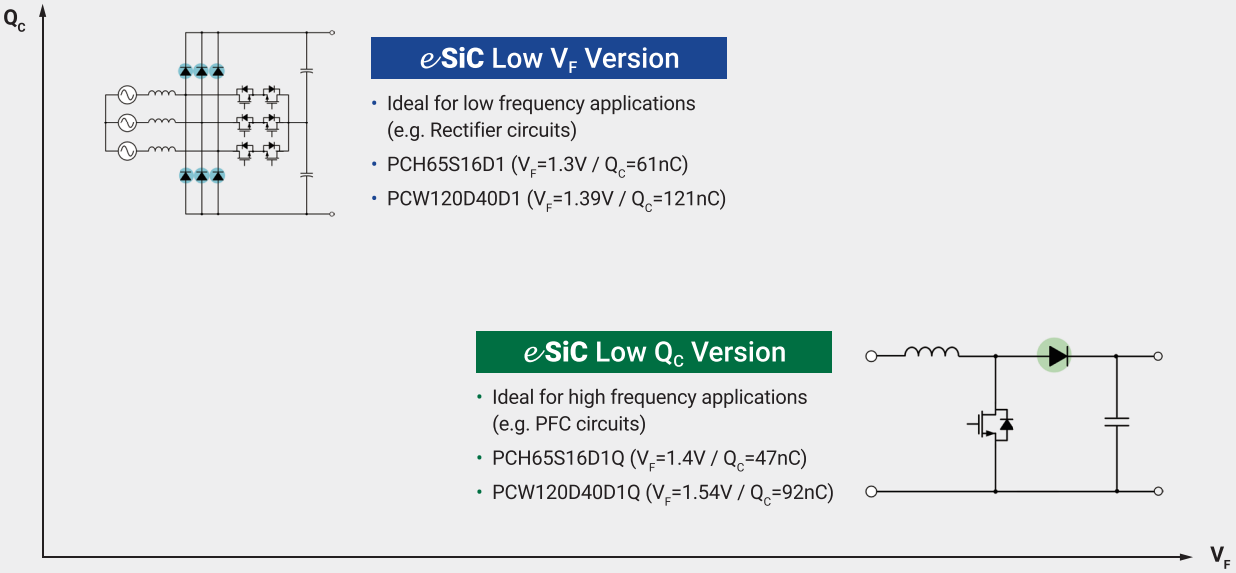
MPS(Merged PiN Schottky) Diode

Improved Surge Current Capability by MPS Technology



Forward Surge Capability , I_{FSM}

Target Applications for Low V_F version & Low Q_C version



*e*SiC Low V_F Version

- Ideal for low frequency applications (e.g. Rectifier circuits)
- PCH65S16D1 (V_F=1.3V / Q_C=61nC)
- PCW120D40D1 (V_F=1.39V / Q_C=121nC)

*e*SiC Low Q_C Version

- Ideal for high frequency applications (e.g. PFC circuits)
- PCH65S16D1Q (V_F=1.4V / Q_C=47nC)
- PCW120D40D1Q (V_F=1.54V / Q_C=92nC)

600V / 650V *e*MOS SJ MOSFET

*e*MOS E7 - PFC (Hard Switching)

- Optimized performance between efficiency & easy of use
- Low EMI noise, optimized gate & drain ringing
- Rugged body diode
- Internal R_G & optimized capacitances

*e*MOS UF7 - LLC / ZVS (DC-DC, Soft Switching)

- Excellent body diode performance
- Smaller Q_{RR} for lower voltage spikes
- Better system reliability
- Reduced dynamic C_{OSS} loss (E_{DYN})

PFC (Hard Switching)

*e*MOS E7 by optimizing charge balance of pillar

Hard/Soft Switching Topologies

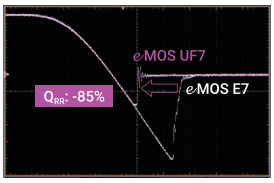
- Optimized balance between efficiency & easy of use
- Low EMI noise, optimized gate & drain ringing
- Rugged Body diode
- Internal R_G & optimized Capacitances
- Typ. V_{TH}=3.5V

LLC / ZVS (DC-DC) (Soft Switching)

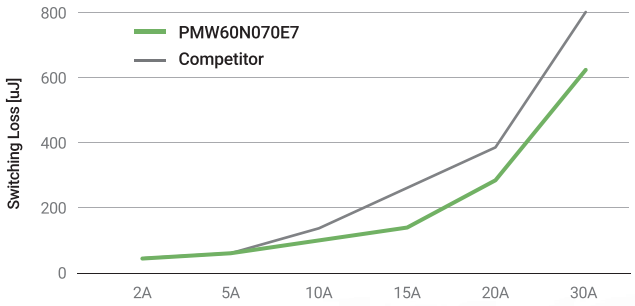
*e*MOS UF7 by controlling carrier lifetime

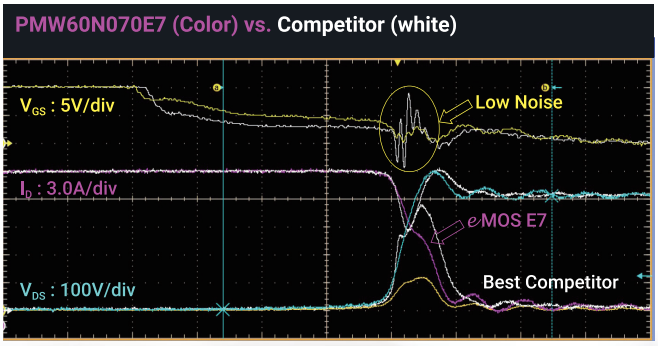
Soft Switching Topologies

- Robust diode ruggedness
- Smaller Q_{RR} for lower spikes
- Better system reliability
- Reduced E_{DYN}
- Typ. V_{TH}=4V



Lower Switching Loss but Lower Switching noise against the best competitor





150V / 200V *e*MOS Trench MOSFET

Features

- Reduced switching and conduction losses
- Enhanced body diode dV/dt capability
- Robust avalanche capability
- Pb-free, Halogen free, and RoHS compliant

Key Benefits

- System efficiency improvement
- Higher system reliability
- Higher frequency operation
- Increased power density

Applications

LEV | UPS | Power Tool | Motor Drive

650V / 1200V / 1700V eSiC MOSFET Portfolio

650V / 1200V / 1700V Gen1 eSiC MOSFET (Industrial Grade)

Voltage	Package / $R_{DS(ON)\_typ}$	Bare Die	TOLL	D2PAK-7L	TO-247-3L	TO-247-4L	TO-247-4L Notch
							
650V	12mΩ	PCO65N12M1	PCT65N12M1	PCBF65N12M1	PCW65N12M1	PCZ65N12M1	
	15mΩ	PCO65N15M1	PCT65N15M1	PCBF65N15M1	PCW65N15M1	PCZ65N15M1	
	22mΩ	PCO65N22M1	PCT65N22M1				
	27mΩ	PCO65N27M1	PCT65N27M1	PCBF65N27M1	PCW65N27M1	PCZ65N27M1	
	39mΩ	PCO65N39M1	PCT65N39M1				
	45mΩ	PCO65N45M1	PCT65N45M1	PCBF65N45M1	PCW65N45M1	PCZ65N45M1	
1200V	21mΩ	PCO120N21M1			PCW120N21M1	PCZ120N21M1	
	40mΩ	PCO120N40M1		PCBF120N40M1	PCW120N40M1	PCZ120N40M1	
	80mΩ	PCO120N80M1		PCBF120N80M1	PCW120N80M1	PCZ120N80M1	
1700V	24mΩ	PCO170N24M1			PCW170N24M1		PCZN170N24M1
	40mΩ	PCO170N40M1		PCBF170N40M1	PCW170N40M1		PCZN170N40M1
	1000mΩ	PCO170N1K0M1		PCBF170N1K0M1	PCW170N1K0M1		

1200V Gen1 eSiC MOSFET (Automotive Grade)

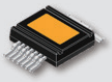
Voltage	Package / $R_{DS(ON)\_typ}$	Bare Die	D2PAK-7L	TO-247-3L	TO-247-4L
					
1200V	21mΩ	PCO120N21M1A		PCW120N21M1A	PCZ120N21M1A
	40mΩ	PCO120N40M1A			PCZ120N40M1A
	80mΩ	PCO120N80M1A	PCBF120N80M1A		PCZ120N80M1A

For more product information, please visit **www.powermastersemi.com**

1200V Gen2 *e*SiC MOSFET (Industrial Grade) New

Voltage	Package / $R_{DS(ON)\_typ}$	Bare Die	D2PAK-7L	TO-247-3L	TO-247-4L	TO-247-4L Notch
						
1200V	16mΩ	PCO120N16M2	PCBF120N16M2	PCW120N16M2	PCZ120N16M2	PCZN120N16M2
	21mΩ	PCO120N21M2	PCBF120N21M2	PCW120N21M2	PCZ120N21M2	PCZN120N21M2
	31mΩ	PCO120N31M2	PCBF120N31M2	PCW120N31M2	PCZ120N31M2	PCZN120N31M2
	40mΩ	PCO120N40M2	PCBF120N40M2	PCW120N40M2	PCZ120N40M2	PCZN120N40M2
	65mΩ	PCO120N65M2	PCBF120N65M2	PCW120N65M2	PCZ120N65M2	PCZN120N65M2
	80mΩ	PCO120N80M2	PCBF120N80M2	PCW120N80M2	PCZ120N80M2	PCZN120N80M2

1200V Gen2 *e*SiC MOSFET (Automotive Grade) New

Voltage	Package / $R_{DS(ON)\_typ}$	Bare Die	TO-247-4L	TO-247-4L Notch	TSPAK-DBC	TSPAK-LF
						
1200V	16mΩ	PCO120N16M2A	PCZ120N16M2A	PCZN120N16M2A		
	21mΩ	PCO120N21M2A		PCZN120N21M2A	PCRZ120N21M2A	PCR120N21M2A
	40mΩ	PCO120N40M2A		PCZN120N40M2A	PCRZ120N40M2A	PCR120N40M2A
	65mΩ	PCO120N65M2A		PCZN120N65M2A	PCRZ120N65M2A	PCR120N65M2A

650V / 1200V / 1700V eSiC Diode Portfolio

650V eSiC Diode (Industrial Grade) - Low V_F for Low Switching Freq. Applications

Package / I_F	Bare Die	DPAK	D2PAK	TO-220F-2L	TO-220-2L	TO-247-2L	TO-247-3L
							
40A							PCW65D40D1
30A							PCW65D30D1
20A	PCO65S20D1		PCB65S20D1	PCF65S20D1	PCH65S20D1	PCA65S20D1	PCW65D20D1
16A	PCO65S16D1				PCH65S16D1		PCW65D16D1
12A	PCO65S12D1			PCF65S12D1	PCH65S12D1		
10A	PCO65S10D1	PCD65S10D1	PCB65S10D1	PCF65S10D1	PCH65S10D1		
8A	PCO65S08D1		PCB65S08D1	PCF65S08D1	PCH65S08D1		
6A	PCO65S06D1			PCF65S06D1	PCH65S06D1		
4A	PCO65S04D1			PCF65S04D1	PCH65S04D1		

650V eSiC Diode (Industrial Grade) - Low Q_C for High Switching Freq. Applications

Package / I_F	Bare Die	DPAK	D2PAK	TO-220F-2L	TO-220-2L	TO-247-2L	TO-247-3L
							
50A						PCA65D50D1Q	
40A							PCW65D40D1Q
30A						PCA65S30D1Q	PCW65D30D1Q
20A	PCO65S20D1Q		PCB65S20D1Q	PCF65S20D1Q	PCH65S20D1Q	PCA65S20D1Q	PCW65D20D1Q
16A	PCO65S16D1Q				PCH65S16D1Q		PCW65D16D1Q
12A	PCO65S12D1Q		PCB65S12D1Q	PCF65S12D1Q	PCH65S12D1Q		
10A	PCO65S10D1Q			PCF65S10D1Q	PCH65S10D1Q		
8A	PCO65S08D1Q			PCF65S08D1Q	PCH65S08D1Q		
6A	PCO65S06D1Q			PCF65S06D1Q	PCH65S06D1Q		

For more product information, please visit **www.powermastersemi.com**

1200V *e*SiC Diode (Industrial Grade)

Package / I_F	Bare Die	D2PAK	TO-220-2L	TO-247-2L	TO-247-3L
					
60A				PCA120S60D1Q	PCW120D60D1Q
40A	PCO120S40D1			PCA120S40D1	PCW120D40D1 / D1Q
30A	PCO120S30D1			PCA120S30D1 / D1Q	PCW120D30D1
20A	PCO120S20D1	PCB120S20D1	PCH120S20D1	PCA120S20D1	PCW120D20D1
15A	PCO120S15D1		PCH120S15D1	PCA120S15D1	PCW120D15D1
10A	PCO120S10D1	PCB120S10D1	PCH120S10D1	PCA120S10D1	PCW120D10D1
8A	PCO120S08D1		PCH120S08D1		
5A	PCO120S05D1		PCH120S05D1		

1700V *e*SiC Diode (Industrial Grade)

Package / I_F	Bare Die	TO-247-2L
		
25A	PCO170S25D1	PCA170S25D1
10A	PCO170S10D1	PCA170S10D1

1200V *e*SiC Diode (Automotive Grade) New

Package / I_F	TO-247-2L	TO-247-3L
		
40A	PCO120S40D1A	PCW120D40D1A / D1QA
30A	PCO120S30D1A / D1QA	PCW120D30D1A
20A	PCO120S20D1A	PCW120D20D1A
15A	PCO120S15D1A	PCW120D15D1A
10A	PCO120S10D1A	PCW120D10D1A

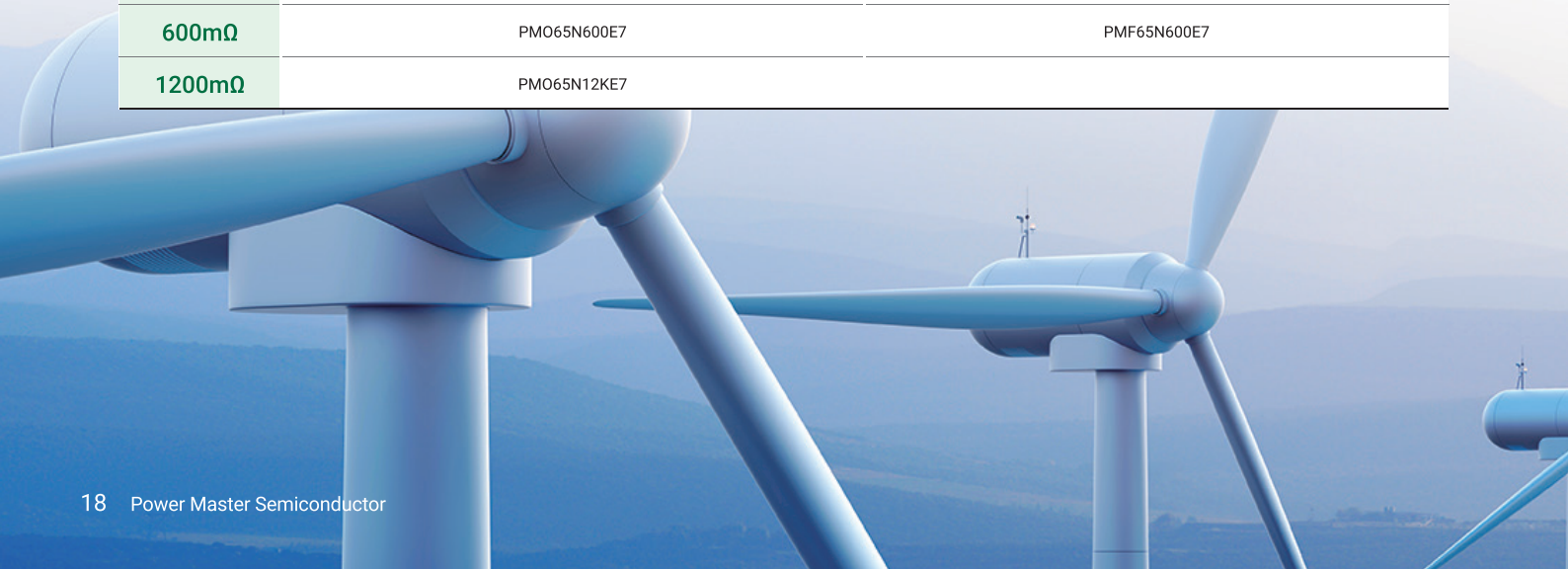
600V / 650V eMOS E7 / UF7 Portfolio

600V eMOS E7 MOSFET

Package / $R_{DS(ON)\_max}$	Die	DPAK	PQFN88	TOLL	TO-220	TO-220F	TO-247-3L	TO-247-4L
								
28mΩ	PMO60N028E7						PMW60N028E7	PMZ60N028E7
40mΩ	PMO60N040E7						PMW60N040E7	
70mΩ	PMO60N070E7						PMW60N070E7	
99mΩ	PMO60N099E7				PMP60N099E7	PMF60N099E7	PMW60N099E7	
105mΩ			PML60N105E7	PMT60N105E7				
180mΩ	PMO60N180E7				PMP60N180E7	PMF60N180E7		
280mΩ	PMO60N280E7	PMD60N280E7			PMP60N280E7	PMF60N280E7		
380mΩ	PMO60N380E7	PMD60N380E7			PMP60N380E7	PMF60N380E7		
600mΩ	PMO60N600E7	PMD60N600E7				PMF60N600E7		

650V eMOS E7 MOSFET

Package / $R_{DS(ON)\_max}$	Die	TO-220F
		
180mΩ	PMO65N180E7	PMF65N180E7
280mΩ	PMO65N280E7	PMF65N280E7
380mΩ	PMO65N380E7	PMF65N380E7
600mΩ	PMO65N600E7	PMF65N600E7
1200mΩ	PMO65N12KE7	



For more product information, please visit **www.powermastersemi.com**

600V eMOS UF7 MOSFET

Package / $R_{DS(ON)\_max}$	Die	TO-220F	TO-247-3L
			
30mΩ	PMO60N030UF7		PMW60N030UF7
43mΩ	PMO60N043UF7		PMW60N043UF7
75mΩ	PMO60N075UF7		PMW60N075UF7
105mΩ	PMO60N105UF7		PMW60N105UF7
193mΩ	PMO60N193UF7	PMF60N193UF7	

650V eMOS UF7 MOSFET

Package / $R_{DS(ON)\_max}$	Die	TO-247-3L
		
45mΩ	PMO65N045UF7	PMW65N045UF7
310mΩ	PMO65N310UF7	
645mΩ	PMO65N645UF7	

150V / 200V eMOS Trench MOSFET

150V / 200V eMOS Trench MOSFET

Voltage	Package / $R_{DS(ON)\_max}$	Die	TO-247-3L
			
150V	5.9mΩ	PSO15N5P9G1	PSW15N5P9G1
200V	9.7mΩ	PSO20N9P7G1	PSW20N9P7G1

Ordering Information

eSiC MOSFET

P C Z 120 N 21 M1 A

- **MOSFET / Grade**
  - A : Automotive Grade
  - None : Industrial Grade
- **MOSFET / Generation**
  - M1 : Gen1 / M2 : Gen2 / M3 : Gen3
- **$R_{DS(ON)}$ Typ [mΩ]**
- **Channel Polarity**
- **Voltage Rating (x10)**
- **Package**
  - BF : D2PAK-7L
  - T : TOLL
  - P : TO-220-3L
  - W : TO-247-3L
  - Z : TO-247-4L
  - ZN : TO-247-4L Notch
  - R : TSPAK-LF
  - RZ : TSPAK-DBC
  - O : Wafer (Unsawn)
  - OS : Wafer (Sawn)
- **SiC Technology**
- **Power Master Semiconductor**

eSiC Diode

P C P 120 S 20 D1(Q) A

- **Diode / Product Grade**
  - A : Automotive Grade
  - None : Industrial Grade
- **Diode / Generation**
  - D1 : The 1st Gen. Low V_F
  - D1Q : The 1st Gen. Low Q_C
- **Current [A]**
- **S : Single Die / D : Dual Die**
- **Voltage Rating (x10)**
- **Package**
  - B : D2PAK
  - H : TO-220-2L
  - P : TO-220-3L
  - L : PQFN88
  - D : DPAK (Center Lead Type)
  - M : DPAK (No Center Lead Type)
  - W : TO-247-3L
  - A : TO-247-2L
  - O : Wafer (Unsawn)
  - OS : Wafer (Sawn)
- **SiC Technology**
- **Power Master Semiconductor**

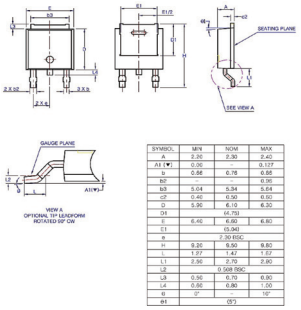
eMOS SJ MOSFET

P M P 60 N 180 E 7 Z A

- **MOSFET / Grade**
  - A : Automotive Grade
  - None : Industrial Grade
- **Zener Diode**
- **Generation**
- **Switching Characteristic**
  - E : Efficient
  - F : FRFET
  - UF : Ultra FRFET
  - H : High Efficiency
- **$R_{DS(ON)}$ Max [mΩ]**
- **Channel Polarity**
- **Voltage Rating (x10)**
- **Package**
  - B : D2PAK
  - D : DPAK
  - E : ISOTOP
  - F : TO-220F-3L
  - FN : Narrow lead
  - FW : Wide pitch
  - I : I2PAK
  - L : PQFN88
  - N : SOT-223
  - P : TO-220-3L
  - T : TOLL
  - U : IPAK
  - W : TO-247-3L
  - Z : TO-247-4L
  - S : PQFN56
  - O : Wafer (Unsawn)
  - OS : Wafer (Sawn)
- **Super Junction MOSFET Technology**
- **Power Master Semiconductor**

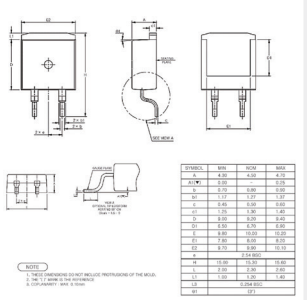
Package Outline

DPAK



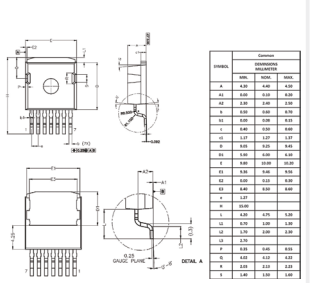
SYMBOL	MIN	NOM	MAX
A	2.20	2.30	2.40
A1 (▼)	0.00	-	0.127
b	0.66	0.76	0.86
b2			0.95
b3	5.04	5.34	5.64
c/2	0.46	0.50	0.50
D	5.90	6.10	6.30
D1		(4.75)	
E	6.40	6.60	6.80
E1		(3.04)	
e		2.30 BSC	
H	9.20	9.50	9.80
L	1.27	1.47	1.67
L1	2.90	2.70	2.90
L2		0.508 BSC	
L3	0.50	0.70	0.90
L4	0.60	0.80	1.00
θ	0°	-	10°
θ1		(5°)	

D2PAK



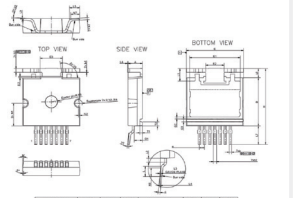
SYMBOL	MIN	NOM	MAX
A	4.30	4.50	4.70
A1 (▼)	0.00	-	0.25
b	0.70	0.80	0.93
b1	1.17	1.27	1.37
c	0.45	0.50	0.60
c1	1.25	1.30	1.40
D	8.50	8.70	8.90
D1	6.50	6.70	6.90
E	9.80	10.00	10.20
E1	7.80	8.00	8.20
E2	8.70	8.90	10.10
e		2.54 BSC	
H	15.00	15.30	15.60
L	2.00	2.30	2.60
L1	1.00	1.20	1.40
L2		0.254 BSC	
θ1		(3°)	

D2PAK-7L



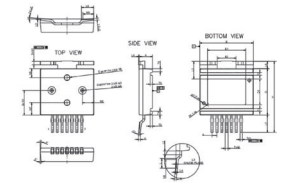
SYMBOL	Common DIMENSIONS MILLIMETER		
	MIN.	NOM.	MAX.
A	4.30	4.40	4.50
A1	0.00	0.127	0.254
A2	2.20	2.40	2.60
b	0.50	0.65	0.75
b1	0.60	0.75	0.90
c	0.40	0.50	0.60
c1	1.17	1.27	1.37
D	9.05	9.25	9.45
D1	6.80	7.00	7.20
D2	0.93	1.13	1.33
E	9.80	10.00	10.20
E1	7.80	8.00	8.20
E2	8.30	8.50	8.70
e		1.27 BSC	
H	14.70	15.00	15.30
L	1.90	2.10	2.30
L1	1.40	1.60	1.80
L2	1.75	1.90	2.05
L3	0.25 BSC		
θ	0°	4°	8°
θ1	5°	7°	9°
θ2	1°	3°	5°

TSPAK-LF



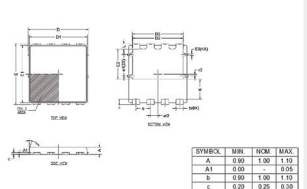
SYMBOL	MIN.	NOM.	MAX.	SYMBOL	MIN.	NOM.	MAX.
A	3.40	3.50	3.60	L4	0.076	0.125	0.175
A1		0.05		L5	2.38	2.48	2.58
b	0.50	0.60	0.70	L6	2.14	2.24	2.34
b2	0.70	0.80	0.90	L7	4.44	4.54	4.64
b3	0.80	0.90	0.98	N1	5.46	5.56	5.66
b4	Ref only. 0.15mm			N2	0.25	0.30	0.35
c	0.40	0.50	0.60	N3	0.80	0.90	1.00
c2	0.40	0.50	0.60	N4	1.00	1.10	1.20
D	11.70	11.80	11.90	N5	1.40	1.50	1.60
D1	7.78	7.88	7.98	N6	2.165	2.265	2.365
D2	0.24	0.34	0.44	N7	2.10	2.20	2.30
E	13.90	14.00	14.10	G1	1.90	2.00	2.10
E1	12.30	12.40	12.50	G2	0.41	0.51	0.61
E2	4.45	4.60	4.65	G3	0.60	0.75	0.90
E3	5.45	5.50	5.55	T1		0.60	
e		1.27		T2		1.00	
H	18.00	18.08	19.00	T3	0.60	0.75	0.90
L	2.42	2.52	2.62	V1	6°	8°	8°
L1		3.04		V2	6°	8°	8°
L2	0.90	1.00	1.10	V3		10°	
L3		0.25		aaa		0.1	

TSPAK-DBC



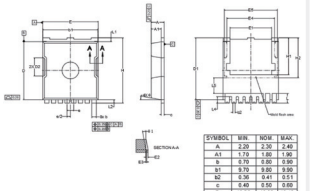
SYMBOL	MIN.	NOM.	MAX.	SYMBOL	MIN.	NOM.	MAX.
A	3.40	3.50	3.60	L5	3.09	3.19	3.29
A1		0.05		L6	1.89	1.99	2.09
b	0.50	0.60	0.70	L7	4.44	4.54	4.64
b2	0.70	0.80	0.90	N1	5.36	5.46	5.56
b3	0.80	0.90	0.98	N2	2.95	3.00	3.05
c	0.40	0.50	0.60	N3	0.40	0.50	0.60
c2	0.40	0.50	0.60	N4	0.20	0.25	0.30
D	12.04	12.14	12.24	N5	0.95	1.05	1.85
D1	6.29	6.74	7.34	N6	2.25	2.35	2.45
E	13.96	14.00	14.10	N7	3.15	3.25	3.35
E1	9.55	10.00	10.80	N8	2.165	2.265	2.365
E2	4.85	4.90	4.95	N9	2.73	2.83	2.93
e		1.27		V1	6°	8°	8°
H	18.08	18.58	19.60	V2	6°	8°	8°
L	2.42	2.52	2.62	T1		0.69	
L1		4.60		T2		0.74	
L2	0.90	1.00	1.10	T3		0.93	
L3		0.25		T4		1.00	
L4	0.975	1.125	1.175	aaa		0.10	

PQFN88



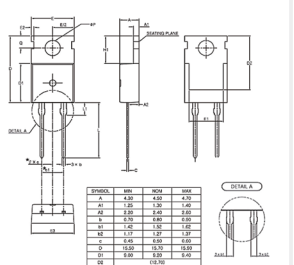
SYMBOL	MIN.	NOM.	MAX.
A	0.90	1.00	1.10
A1	0.00	-	0.05
b	0.90	1.00	1.10
c	0.20	0.25	0.30
D	8.20	8.30	8.40
D1	7.90	8.00	8.10
D2	6.80	6.90	7.00
D3	6.90	7.00	7.10
E	8.30	8.40	8.50
E1	7.80	7.90	8.00
E2	4.0450	4.145	4.245
E3	0.15	0.25	0.35
e		2.00 BSC	
e2		1.90 BSC	
e1		2.95 BSC	
e2		0.260 BSC	
K	2.68	2.75	2.82
L	0.67	0.77	0.87
L1	0.64	0.74	0.84
θ	0°	-	12°

TOLL



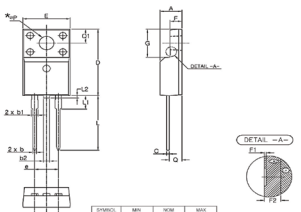
SYMBOL	MIN.	NOM.	MAX.
A	2.20	2.30	2.40
A1	1.79	1.80	1.90
b	0.70	0.80	0.90
b1	9.70	9.80	9.90
b2	0.36	0.41	0.51
c	0.40	0.50	0.60
D	10.28	10.38	10.48
D1	10.98	11.08	11.18
D2		3.39	
E	9.80	9.90	10.00
E1	7.32	7.42	7.52
E2	6.39	6.40	6.50
E3	6.15	6.18	6.21
E4		8.59	
E5		9.46	
e		1.29 BASIC	
H	11.58	11.68	11.78
H1	6.55	6.65	6.75
H2	7.05	7.15	7.25
L	1.63	1.73	1.83
L1	0.60	0.70	0.80
L2	0.59	0.69	0.79
L4	1.00	1.15	1.30
L5	2.70	2.80	2.90
N		8	
θ		15° REF.	
θ1		15° REF.	

TO-220-2L



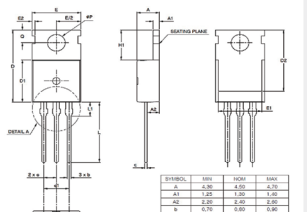
SYMBOL	MIN	NOM	MAX
A	4.30	4.50	4.70
A1	1.25	1.30	1.40
A2	2.30	2.60	2.80
b	0.70	0.80	0.90
b1	1.40	1.52	1.62
b2	1.17	1.27	1.37
c	0.45	0.50	0.60
D	15.70	15.70	15.90
D1	9.00	9.20	9.40
D2		(13.70)	
E	9.70	9.90	10.10
E1		8.600	
E2	8.70	8.90	10.10
E3		6.60	
e		2.54 BSC	
e1		5.08 BSC	
H1	6.30	6.50	6.70
L	12.88	13.08	13.28
L1		3.68	
øP	3.50	3.60	3.70
Q	2.70	2.80	2.90

TO-220F-2L



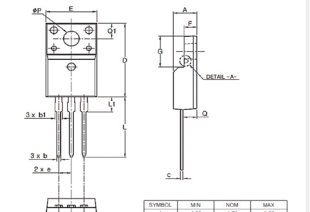
SYMBOL	MIN	NOM	MAX
A	4.50	4.70	4.90
b	0.70	0.80	0.90
b1	1.30	1.40	1.47
b2	1.58	1.68	1.78
C	0.45	0.50	0.60
D	15.67	15.87	16.07
E	9.96	10.16	10.36
e		5.08 BSC	
F	2.94	3.04	3.14
F1		0.50	0.70
F2		(0.74)	
G	6.48	6.68	6.88
L	12.78	12.98	13.18
L1	3.08	3.18	3.38
L2		0.80	
Q	2.66	2.76	2.86
Q1	3.10	3.30	3.50
øP	3.08	3.18	3.28

TO-220-3L



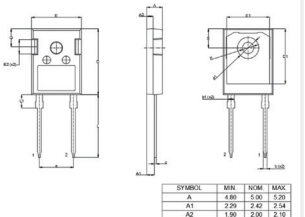
SYMBOL	MIN	NOM	MAX
A	4.30	4.50	4.70
A1	1.25	1.30	1.40
A2	2.30	2.40	2.60
b	0.70	0.80	0.90
b1	1.42	1.52	1.62
b2	1.17	1.27	1.37
c	0.45	0.50	0.60
D	15.50	15.70	15.90
D1	9.00	9.20	9.40
D2	13.10	13.30	13.50
E	9.70	9.90	10.10
E1		8.600	
E2		10.600	
E3	6.60	6.80	10.20
e		2.54 BSC	
e1		5.08 BSC	
H1	6.30	6.50	6.70
L	12.88	13.08	13.28
L1		3.68	
øP	3.40	3.60	3.80
Q	2.70	2.80	2.90

TO-220F-3L



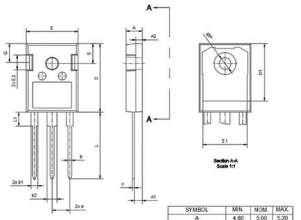
SYMBOL	MIN	NOM	MAX
A	4.50	4.70	4.90
b	0.70	0.80	0.90
b1	1.30	1.40	1.47
C	0.45	0.50	0.60
D	15.67	15.87	16.07
E	9.96	10.16	10.36
e		2.54 BSC	
F	2.94	2.54	2.74
F1		(0.10)	
F2		(0.84)	
G	6.48	6.68	6.88
L	12.78	12.98	13.18
L1	3.08	3.23	3.43
Q	2.66	2.76	2.96
Q1	3.10	3.30	3.50
øP	3.08	3.18	3.28

TO-247-2L



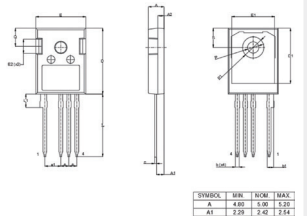
SYMBOL	MIN.	NOM.	MAX.
A	4.89	5.00	5.20
A1	2.29	2.42	2.54
A2	1.90	2.00	2.10
b	1.10	1.20	1.30
b1	1.91	2.06	2.20
b2	2.92	3.00	3.20
c	0.50	0.60	0.70
D	20.60	21.07	21.34
D1	17.43	17.63	17.83
E	15.75	15.94	16.13
E1	13.46	13.66	13.86
E2	4.32	4.58	4.83
e		5.10 BSC	
L	19.85	20.05	20.25
L1	4.05	4.27	4.48
P	3.56	3.61	3.66
P1	6.75	6.80	6.85
Q	5.38	5.79	6.20
S		6.15 BSC	

TO-247-3L



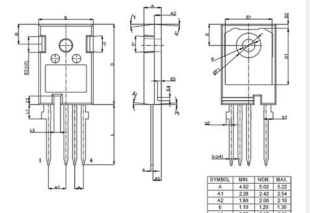
SYMBOL	MIN.	NOM.	MAX.
A	4.89	5.00	5.20
A1	2.29	2.42	2.54
A2	1.90	2.00	2.10
b	1.10	1.20	1.30
b1	1.91	2.06	2.20
b2	2.92	3.00	3.20
c	0.50	0.60	0.70
D	20.80	21.07	21.34
D1	17.43	17.63	17.83
E	15.75	15.94	16.13
E1	13.46	13.66	13.86
E2	4.32	4.58	4.83
e		5.46 BSC	
L	19.85	20.05	20.25
L1	4.05	4.27	4.48
øP	3.56	3.61	3.66
Q	5.38	5.79	6.20
S		6.15 BSC	

TO-247-4L



SYMBOL	MIN.	NOM.	MAX.
A	4.89	5.00	5.20
A1	2.29	2.42	2.54
A2	1.90	2.00	2.10
b	1.10	1.20	1.30
b1	1.91	2.06	2.20
c	0.50	0.60	0.70
D	20.80	21.07	21.34
D1	17.43	17.63	17.83
E	15.75	15.94	16.13
E1	13.46	13.66	13.86
E2	4.32	4.58	4.83
e		2.54 BSC	
e1		5.08 BSC	
L	19.90	19.95	20.10
L1	-	-	4.30
P	3.56	3.61	3.66
P1	6.75	6.80	6.85
Q	5.38	5.79	6.20
S		6.15 BSC	

TO-247-4L Notch



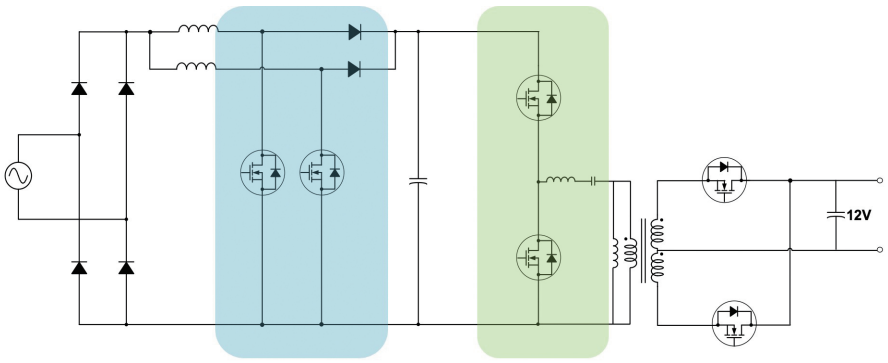
SYMBOL	MIN.	NOM.	MAX.
A	4.82	5.02	5.22
A1	2.29	2.42	2.54
A2	1.89	2.00	2.10
b	1.19	1.20	1.36
b1	2.52	2.57	2.61
b2	1.43	1.50	1.60
c	0.59	0.60	0.70
D	23.35	23.45	23.55
D1	16.26	16.46	16.66
D2	0.99	1.19	1.38
E	15.75	15.94	16.13
E1	13.46	13.66	13.86
E2	4.32	4.58	4.79
E3	1.95	1.10	1.25
E4	0.95	1.00	1.15
e		2.54 BSC	
e1		5.08 BSC	
L	17.37	17.57	17.72
L1	3.97	4.19	4.41
L2	2.36	2.50	2.65
L3	1.73	1.88	2.03
P	3.56	3.61	3.66
P1	7.15	7.20	7.25
Q	5.48	5.79	5.99
S		6.17 BSC	

For more product information,
please visit **www.powermastersemi.com**

* Dimensions in millimeters

Server Power Supply

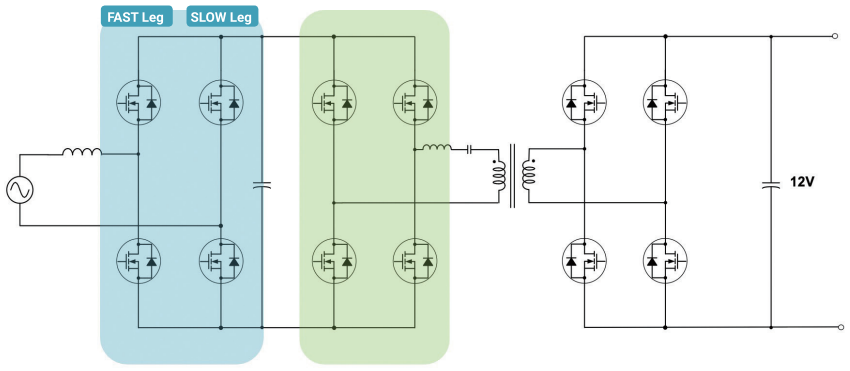
Device Solution for Server Power (< 1.6kW)



Interleaved CCM PFC - Recommended Products		
e-MOS E7	PMW60N099E7	600V / 99mΩ, TO-247-3L
	PML60N105E7	600V / 105mΩ, PQFN88
	PMP60N180E7	600V / 180mΩ, TO-220
e-SiC Diode	PCH65S06D1Q	650V / 6A, TO-220-2L
	PCH65S08D1Q	650V / 8A, TO-220-2L

LLC or ZVS PSFB - Recommended Products		
e-MOS UF7	PMW60N075UF7	600V / 75mΩ, TO-247-3L
	PMW60N105UF7	600V / 105mΩ, TO-247-3L

Device Solution for Hyperscale Cloud or AI Server Power (> 1.6kW)

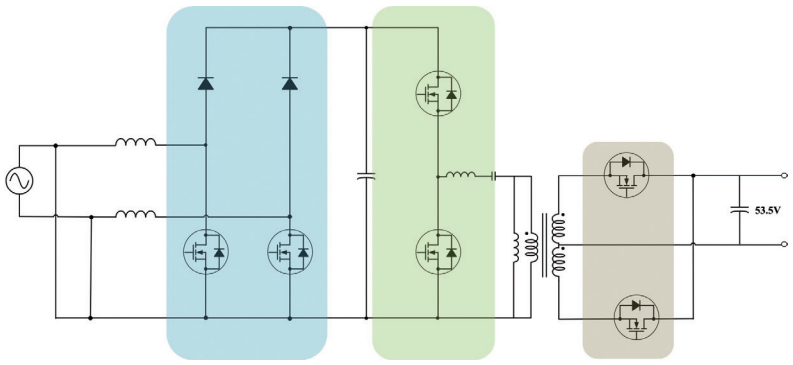


Totem-Pole PFC - Recommended Products		
e-SiC MOSFET (FAST Leg)	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCT65N12M1	650V / 12mΩ, TOLL
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCT65N15M1	650V / 15mΩ, TOLL
	PCT65N22M1	650V / 22mΩ, TOLL
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCT65N27M1	650V / 27mΩ, TOLL
	PCT65N39M1	650V / 39mΩ, TOLL
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
	PCT65N45M1	650V / 45mΩ, TOLL
e-MOS E7 / UF7 (SLOW Leg)	PMW60N028E7	600V / 28mΩ, TO-247-3L
	PMZ60N028E7	600V / 28mΩ, TO-247-4L
	PMW60N040E7	600V / 40mΩ, TO-247-3L
	PMW60N030UF7	600V / 43mΩ, TO-247-3L
	PMW60N043UF7	600V / 30mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L

LLC or ZVS PSFB - Recommended Products		
e-SiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCT65N12M1	650V / 12mΩ, TOLL
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCT65N15M1	650V / 15mΩ, TOLL
	PCT65N22M1	650V / 22mΩ, TOLL
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCT65N27M1	650V / 27mΩ, TOLL
	PCT65N39M1	650V / 39mΩ, TOLL
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
	PCT65N45M1	650V / 45mΩ, TOLL
e-MOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

Telecom Power Supply

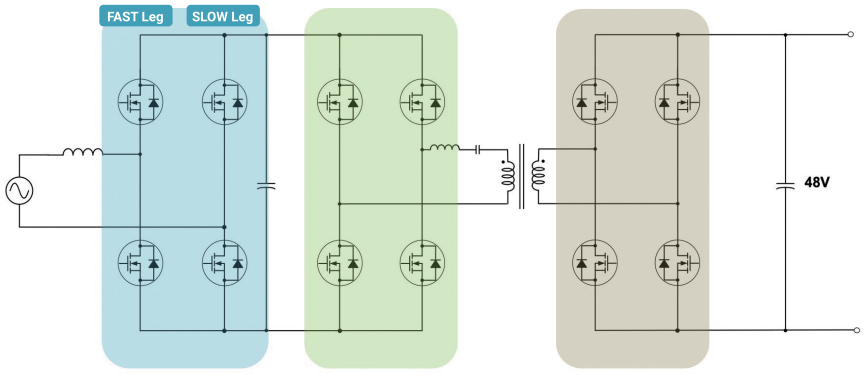
Device Solution for Telecom Power



Dual-Boost Bridgeless PFC - Recommended Products		
*e*MOS E7	PMW60N099E7	600V / 99mΩ, TO-247-3L
	PML60N105E7	600V / 105mΩ, PQFN88
	PMP60N180E7	600V / 180mΩ, TO-220-3L
*e*SiC Diode	PCH65S06D1Q	650V / 6A, TO-220-2L
	PCH65S08D1Q	650V / 8A, TO-220-2L

LLC - Recommended Products		
*e*MOS UF7	PMW60N075UF7	600V / 75mΩ, TO-247-3L
	PMW60N105UF7	600V / 105mΩ, TO-247-3L

Synchronous Rectification - Recommended Products		
150V *e*MOS	PSW15N5P9G1	150V / 5.9mΩ, TO-247-3L
200V *e*MOS	PSW20N9P7G1	200V / 9.7mΩ, TO-247-3L



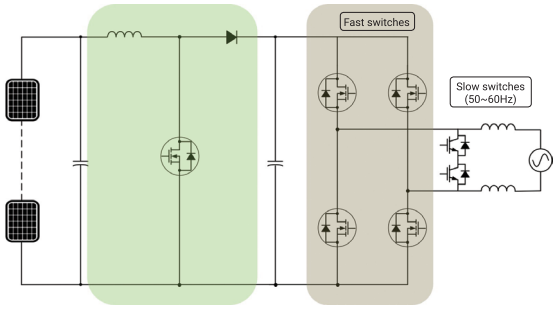
Totem-Pole PFC - Recommended Products		
*e*SiC MOSFET (FAST Leg)	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCT65N12M1	650V / 12mΩ, TOLL
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCT65N15M1	650V / 15mΩ, TOLL
	PCT65N22M1	650V / 22mΩ, TOLL
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCT65N27M1	650V / 27mΩ, TOLL
	PCT65N39M1	650V / 39mΩ, TOLL
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
	PCT65N45M1	650V / 45mΩ, TOLL
*e*MOS E7 / UF7 (SLOW Leg)	PMW60N028E7	600V / 28mΩ, TO-247-3L
	PMZ60N028E7	600V / 28mΩ, TO-247-4L
	PMW60N040E7	600V / 40mΩ, TO-247-3L
	PMW60N030UF7	600V / 43mΩ, TO-247-3L
	PMW60N043UF7	600V / 30mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L

LLC or ZVS PSFB - Recommended Products		
*e*SiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCT65N12M1	650V / 12mΩ, TOLL
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCT65N15M1	650V / 15mΩ, TOLL
	PCT65N22M1	650V / 22mΩ, TOLL
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCT65N27M1	650V / 27mΩ, TOLL
	PCT65N39M1	650V / 39mΩ, TOLL
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
	PCT65N45M1	650V / 45mΩ, TOLL
*e*MOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

Synchronous Rectification - Recommended Products		
150V *e*MOS	PSW15N5P9G1	150V / 5.9mΩ, TO-247
200V *e*MOS	PSW20N9P7G1	200V / 9.7mΩ, TO-247

Residential Solar Inverter

Device Solution for Single Phase String Inveter

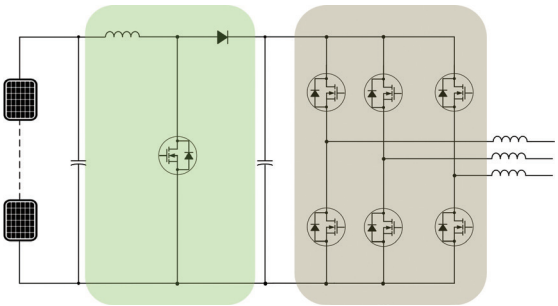


HERIC Inverter

DC-DC MPPT - Boost - Recommended Products		
*e*MOS E7 / UF7	PMW60N028E7	600V / 28mΩ, TO-247-3L
	PMZ60N028E7	600V / 28mΩ, TO-247-4L
	PMW60N040E7	600V / 40mΩ, TO-247-3L
	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
*e*SiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
*e*SiC Diode	PCA65S20D1	650V / 20A, TO-247-2L
	PCA65S20D1Q	650V / 20A, TO-247-2L
	PCW65D30D1	650V / 30A, TO-247-3L
	PCW65D30D1Q	650V / 30A, TO-247-3L

DC-AC HERIC Inverter - Recommended Products		
*e*SiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
*e*MOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

Device Solution for Three Phase String Inveter



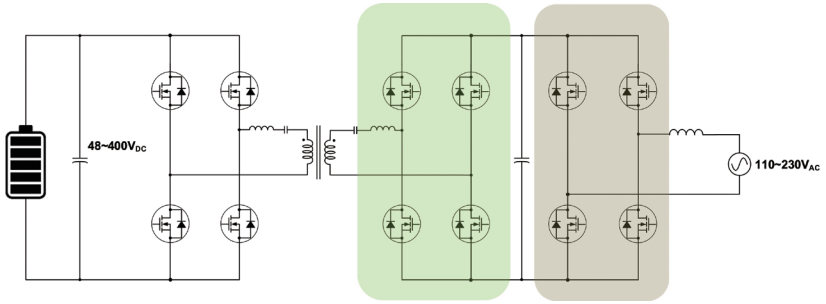
2 Level Inverter

DC-DC MPPT - Boost - Recommended Products		
*e*SiC MOSFET	PCW(Z)120N21M1	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1	1200V / 80mΩ, TO-247-3(4)L
	PCW(Z)120N16M2	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2	1200V / 65mΩ, TO-247-3(4)L
*e*SiC Diode	PCA120S15D1	1200V / 15A, TO-247-2L
	PCW65D16D1Q	650V / 16A, TO-247-3L
	PCA120S20D1	1200V / 20A, TO-247-2L
	PCA65S20D1Q	650V / 20A, TO-247-2L
	PCA120S30D1	1200V / 30A, TO-247-2L
	PCA120S30D1Q	1200V / 30A, TO-247-2L
	PCA120S40D1	1200V / 40A, TO-247-2L

DC-AC 2 Level Inverter - Recommended Products		
*e*SiC MOSFET	PCW(Z)120N21M1	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1	1200V / 80mΩ, TO-247-3(4)L
	PCW(Z)120N16M2	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2	1200V / 65mΩ, TO-247-3(4)L

Energy Storage System

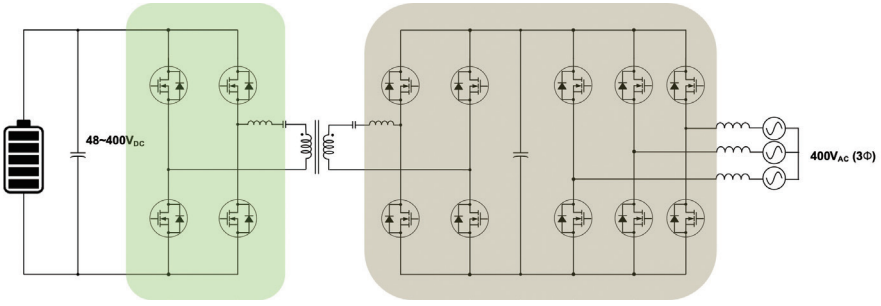
Device Solution for ESS Power Conversion System (PSC) (1Φ)



DC-DC CLLC Secondary - Recommended Products		
eSiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
eMOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

DC-AC Totem-pole - Recommended Products		
eSiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
eMOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

Device Solution for ESS Power Conversion System (PSC) (3Φ)

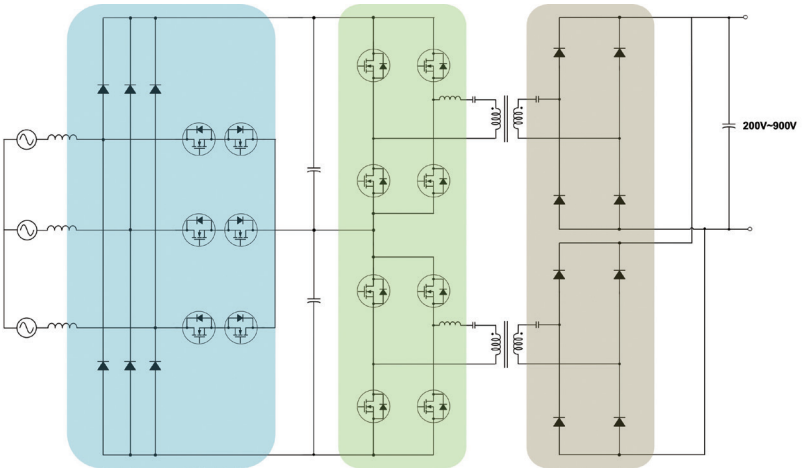


DC-DC CLLC Primary - Recommended Products		
eSiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCBF65N12M1	650V / 12mΩ, D2PAK-7L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCBF65N15M1	650V / 15mΩ, D2PAK-7L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCBF65N27M1	650V / 27mΩ, D2PAK-7L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
	PCBF65N45M1	650V / 45mΩ, D2PAK-7L
eMOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L

DC-AC Three-phase FB (B6) - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1	1200V / 80mΩ, TO-247-3(4)L
	PCW(Z)120N16M2	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2	1200V / 65mΩ, TO-247-3(4)L

DC EV Charger

Device Solution for DC EV Charger (≤ 30kW)

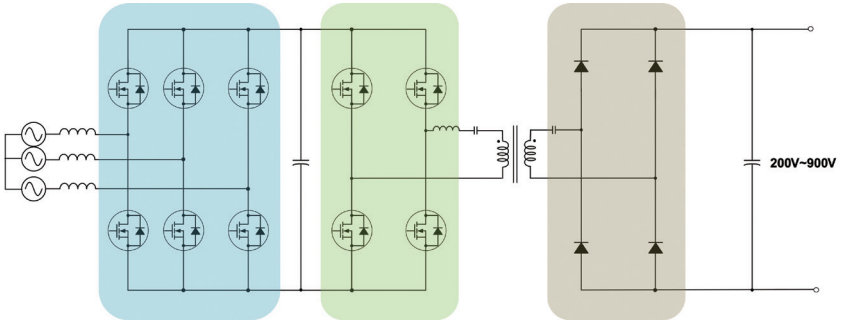


Vienna Rectifier - Recommended Products		
eMOS E7	PMW60N028E7	600V / 28mΩ, TO-247-3L
	PMZ60N028E7	600V / 28mΩ, TO-247-4L
	PMW60N040E7	600V / 40mΩ, TO-247-3L
	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
eSiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L
eSiC Diode	PCA120S(D)20D1	1200V / 20A, TO-247-2/3L
	PCA120S(D)30D1	1200V / 30A, TO-247-2/3L
	PCA120S(D)40D1	1200V / 40A, TO-247-2/3L

Series FB LLC (Primary) - Recommended Products		
eMOS UF7	PMW60N030UF7	600V / 30mΩ, TO-247-3L
	PMW60N043UF7	600V / 43mΩ, TO-247-3L
	PMW65N043UF7	650V / 43mΩ, TO-247-3L
	PMW60N075UF7	600V / 75mΩ, TO-247-3L
eSiC MOSFET	PCZ65N12M1	650V / 12mΩ, TO-247-4L
	PCW65N12M1	650V / 12mΩ, TO-247-3L
	PCZ65N15M1	650V / 15mΩ, TO-247-4L
	PCW65N15M1	650V / 15mΩ, TO-247-3L
	PCZ65N27M1	650V / 27mΩ, TO-247-4L
	PCW65N27M1	650V / 27mΩ, TO-247-3L
	PCZ65N45M1	650V / 45mΩ, TO-247-4L
	PCW65N45M1	650V / 45mΩ, TO-247-3L

Series FB LLC (Secondary) - Recommended Products		
eSiC Diode	PCA120S20D1	1200V / 20A, TO-247-2L
	PCA120S30D1	1200V / 30A, TO-247-2L
	PCA120S40D1	1200V / 40A, TO-247-2L
	PCW120D20D1	1200V / 20A, TO-247-3L
	PCW120D30D1	1200V / 30A, TO-247-3L
	PCW120D40D1	1200V / 40A, TO-247-3L

Device Solution for DC EV Charger (≥ 30kW)



Three-phase FB (B6) Rectifier - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1	1200V / 80mΩ, TO-247-3(4)L
	PCW(Z)120N16M2	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2	1200V / 65mΩ, TO-247-3(4)L

FB LLC (Primary) - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1	1200V / 80mΩ, TO-247-3(4)L
	PCW(Z)120N16M2	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2	1200V / 65mΩ, TO-247-3(4)L

FB LLC (Secondary) - Recommended Products		
eSiC Diode	PCA120S20D1	1200V / 20A, TO-247-2L
	PCA120S30D1	1200V / 30A, TO-247-2L
	PCA120S40D1	1200V / 40A, TO-247-2L
	PCW120D20D1	1200V / 20A, TO-247-3L
	PCW120D30D1	1200V / 30A, TO-247-3L
	PCW120D40D1	1200V / 40A, TO-247-3L

Automotive Applications

SiC MOSFETs for Automotive Block

1200V | 650 / 750V

E-Compressor

31mΩ	27mΩ
40mΩ	
60mΩ	45mΩ
80mΩ	

- 650V/1200V SiC MOS
- IGBT → SiC for higher eff. & smaller form factor
- Top side cooling SMD Package

Onboard Charger(OBC)

10mΩ	15mΩ
16mΩ	
21mΩ	27mΩ
31mΩ	
40mΩ	
65mΩ	45mΩ
80mΩ	

- 110~230V_{AC} (1Φ or 3Φ) to 400~800VDC
- Power limited (22kW) by cost / size
- Bi-directional Operation (V2V / V2G / V2L)

HV-LV DC-DC

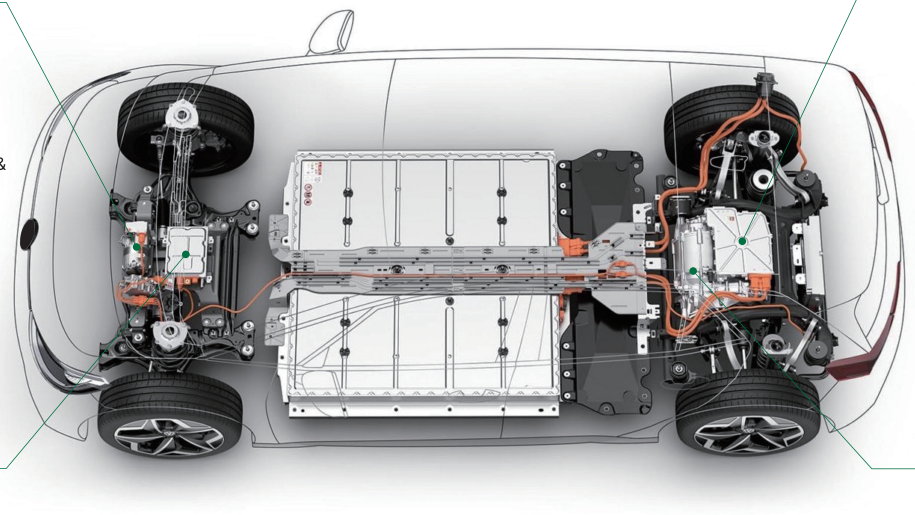
80mΩ	140mΩ
120mΩ	
160mΩ	

- 400/800V_{DC}(HV Batt.) to 12/48V_{DC}(LV Batt.)
- SiC MOSFET for smaller form factor
- Standardization/Integration(OBC+DC-DC)

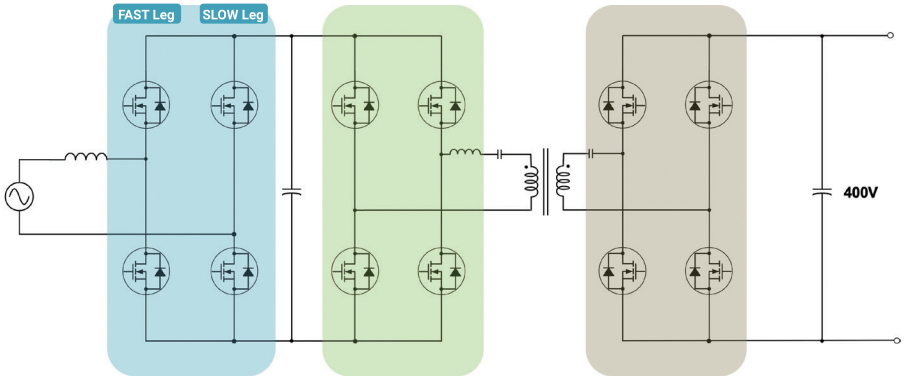
Main Inverter

3mΩ	3mΩ
6mΩ	6mΩ
8mΩ	8mΩ

- 800V into 3-phase AC up to 200kW for e-motor
- IGBT → SiC for higher eff. & smaller form factor
- Hybrid module solution



Device Solution for OBC (Single Phase / 400V Battery)



Bi-Directional

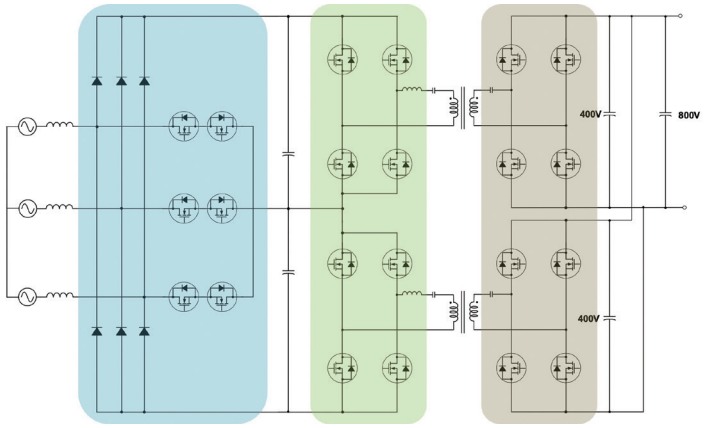
Totem-Pole PFC - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

CLLC (Primary) - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

CLLC (Secondary) - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

On-Board Charger (OBC)

Device Solution for OBC (Three Phase / 800V Battery)



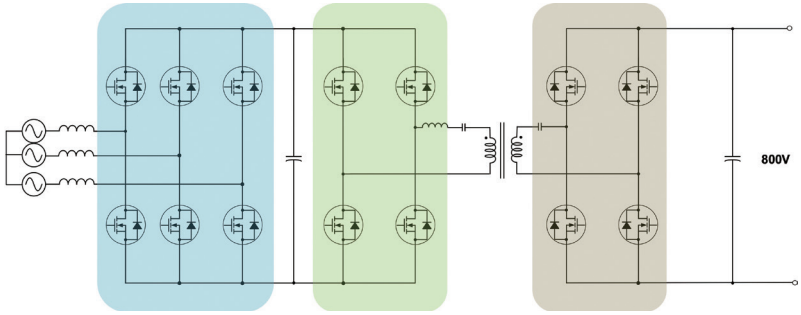
Uni-Directional

Vienna Rectifier - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 15mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L
eSiC Diode	PCA120S15D1A	1200V / 15A, TO-247-2L
	PCA120S20D1A	1200V / 20A, TO-247-2L
	PCA120S30D1A	1200V / 30A, TO-247-2L
	PCA120S40D1A	1200V / 40A, TO-247-2L

CLLC (Primary) - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 15mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

CLLC (Secondary) - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 15mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

Device Solution for OBC (Three Phase / 800V Battery)



Bi-Directional

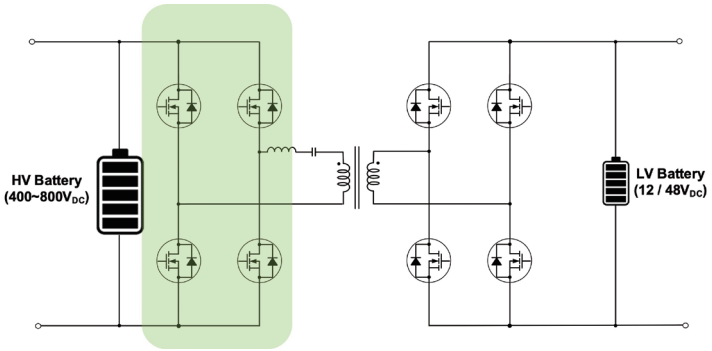
Three-phase FB (B6) Rectifier - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1A	1200V / 80mΩ, TO-247-3(4)L
	PCBF120N21M1A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M1A	1200V / 40mΩ, D2PAK-7L
	PCBF120N80M1A	1200V / 80mΩ, D2PAK-7L
	PCW(Z)120N16M2A	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2A	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2A	1200V / 65mΩ, TO-247-3(4)L
	PCBF120N16M2A	1200V / 16mΩ, D2PAK-7L
	PCBF120N21M2A	1200V / 21mΩ, D2PAK-7L
	PCBF120N31M2A	1200V / 31mΩ, D2PAK-7L
	PCBF120N40M2A	1200V / 40mΩ, D2PAK-7L
	PCBF120N65M2A	1200V / 65mΩ, D2PAK-7L

CLLC (Primary) - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1A	1200V / 80mΩ, TO-247-3(4)L
	PCBF120N21M1A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M1A	1200V / 40mΩ, D2PAK-7L
	PCBF120N80M1A	1200V / 80mΩ, D2PAK-7L
	PCW(Z)120N16M2A	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2A	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2A	1200V / 65mΩ, TO-247-3(4)L
	PCBF120N16M2A	1200V / 16mΩ, D2PAK-7L
	PCBF120N21M2A	1200V / 21mΩ, D2PAK-7L
	PCBF120N31M2A	1200V / 31mΩ, D2PAK-7L
	PCBF120N40M2A	1200V / 40mΩ, D2PAK-7L
	PCBF120N65M2A	1200V / 65mΩ, D2PAK-7L

CLLC (Secondary) - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1A	1200V / 80mΩ, TO-247-3(4)L
	PCBF120N21M1A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M1A	1200V / 40mΩ, D2PAK-7L
	PCBF120N80M1A	1200V / 80mΩ, D2PAK-7L
	PCW(Z)120N16M2A	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2A	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2A	1200V / 65mΩ, TO-247-3(4)L
	PCBF120N16M2A	1200V / 16mΩ, D2PAK-7L
	PCBF120N21M2A	1200V / 21mΩ, D2PAK-7L
	PCBF120N31M2A	1200V / 31mΩ, D2PAK-7L
	PCBF120N40M2A	1200V / 40mΩ, D2PAK-7L
	PCBF120N65M2A	1200V / 65mΩ, D2PAK-7L

HV/LV DC-DC & E-Compressor

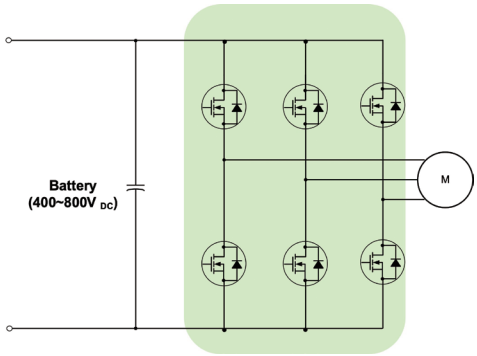
Device Solution for HV/LV DC-DC (400V~800V)



LLC (Primary) for 400V$_{DC}$ - Recommended Products		
eSiC MOSFET	PCZ65N12M1A	650V / 12mΩ, TO-247-4L
	PCZ65N15M1A	650V / 15mΩ, TO-247-4L
	PCZ65N27M1A	650V / 27mΩ, TO-247-4L
	PCZ65N45M1A	650V / 45mΩ, TO-247-4L
	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 15mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

LLC (Primary) for 800V$_{DC}$ - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1A	1200V / 80mΩ, TO-247-3(4)L
	PCBF120N21M1A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M1A	1200V / 40mΩ, D2PAK-7L
	PCBF120N80M1A	1200V / 80mΩ, D2PAK-7L
	PCW(Z)120N16M2A	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N31M2A	1200V / 31mΩ, TO-247-3(4)L
	PCW(Z)120N40M2A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2A	1200V / 65mΩ, TO-247-3(4)L
	PCBF120N16M2A	1200V / 16mΩ, D2PAK-7L
	PCBF120N21M2A	1200V / 21mΩ, D2PAK-7L
	PCBF120N31M2A	1200V / 31mΩ, D2PAK-7L
	PCBF120N40M2A	1200V / 40mΩ, D2PAK-7L
	PCBF120N65M2A	1200V / 65mΩ, D2PAK-7L

Device Solution for E-Compressor

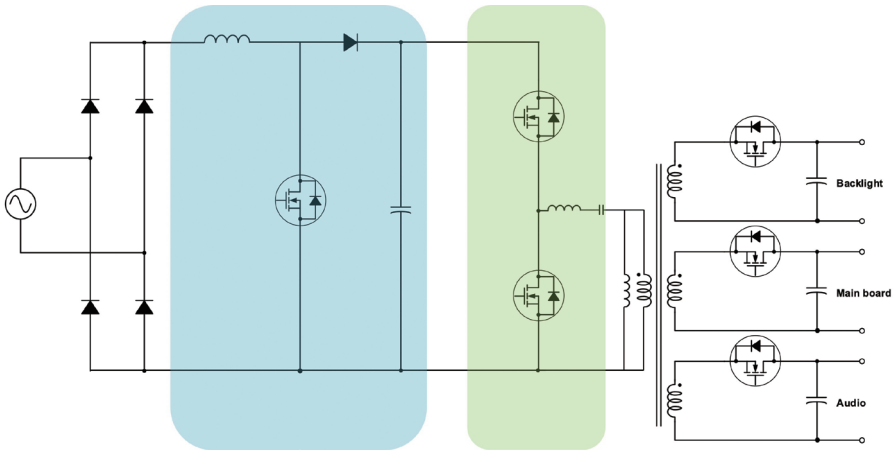


Three phase Inverter for 400V$_{DC}$ - Recommended Products		
eSiC MOSFET	PCBF65N12M1A	650V / 12mΩ, D2PAK-7L
	PCBF65N15M1A	650V / 15mΩ, D2PAK-7L
	PCBF65N27M1A	650V / 27mΩ, D2PAK-7L
	PCBF65N45M1A	650V / 45mΩ, D2PAK-7L

Three phase Inverter for 800V$_{DC}$ - Recommended Products		
eSiC MOSFET	PCW(Z)120N21M1A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M1A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N80M1A	1200V / 80mΩ, TO-247-3(4)L
	PCBF120N21M1A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M1A	1200V / 40mΩ, D2PAK-7L
	PCBF120N80M1 A	1200V / 80mΩ, D2PAK-7L
	PCR(Z)120N21M2A	1200V / 21mΩ, TSPAK-LF(DBC)
	PCR(Z)120N40M2A	1200V / 40mΩ, TSPAK-LF(DBC)
	PCR(Z)120N65M2A	1200V / 65mΩ, TSPAK-LF(DBC)
	PCW(Z)120N16M2A	1200V / 16mΩ, TO-247-3(4)L
	PCW(Z)120N21M2A	1200V / 21mΩ, TO-247-3(4)L
	PCW(Z)120N40M2A	1200V / 40mΩ, TO-247-3(4)L
	PCW(Z)120N65M2A	1200V / 65mΩ, TO-247-3(4)L
	PCBF120N16M2A	1200V / 16mΩ, D2PAK-7L
	PCBF120N21M2A	1200V / 21mΩ, D2PAK-7L
	PCBF120N40M2A	1200V / 40mΩ, D2PAK-7L
	PCBF120N65M2A	1200V / 65mΩ, D2PAK-7L

TV Power Supply

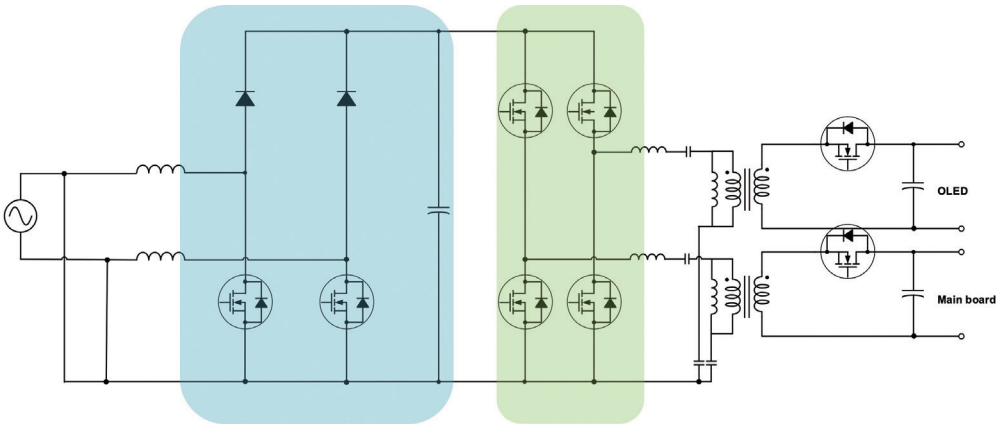
Device Solution for Medium Size TV Power Supply (100 – 300W)



Boost PFC - Recommended Products		
*e*MOS E7	PMD60N280E7	600V / 280mΩ, DPAK
	PMD60N380E7	600V / 380mΩ, DPAK
	PMD60N600E7	600V / 600mΩ, DPAK
	PMF60N280E7	600V / 280mΩ, TO-220F-3L
	PMF60N380E7	600V / 380mΩ, TO-220F-3L
	PMF60N600E7	600V / 600mΩ, TO-220F-3L

HB LLC - Recommended Products		
*e*MOS E7	PMD60N280E7	600V / 280mΩ, DPAK
	PMD60N380E7	600V / 380mΩ, DPAK
	PMD60N600E7	600V / 600mΩ, DPAK
	PMF60N280E7	600V / 280mΩ, TO-220F-3L
	PMF60N380E7	600V / 380mΩ, TO-220F-3L
	PMF60N600E7	600V / 600mΩ, TO-220F-3L

Device Solution for Medium Size TV Power Supply (300 – 600W)

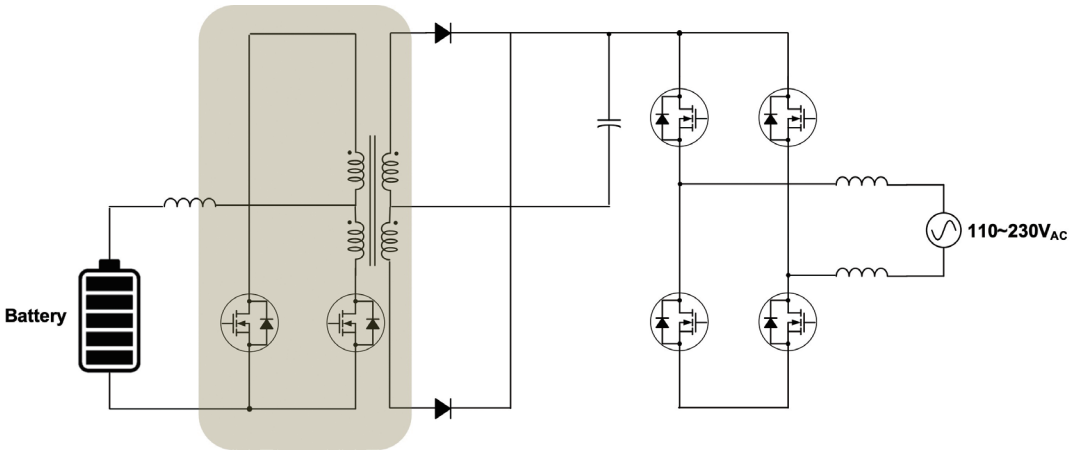


Dual Boost Bridgeless PFC - Recommended Products		
*e*MOS E7	PMD60N180E7	600V / 180mΩ, DPAK
	PMD60N280E7	600V / 280mΩ, DPAK
	PMD60N380E7	600V / 380mΩ, DPAK
	PMF60N099E7	600V / 99mΩ, TO-220F-3L
	PMF60N180E7	600V / 180mΩ, TO-220F-3L
	PMF60N280E7	600V / 280mΩ, TO-220F-3L
	PMF60N380E7	600V / 380mΩ, TO-220F-3L

HB LLC - Recommended Products		
*e*MOS E7	PMD60N180E7	600V / 180mΩ, DPAK
	PMD60N280E7	600V / 280mΩ, DPAK
	PMD60N380E7	600V / 380mΩ, DPAK
	PMF60N099E7	600V / 99mΩ, TO-220F-3L
	PMF60N180E7	600V / 180mΩ, TO-220F-3L
	PMF60N280E7	600V / 280mΩ, TO-220F-3L
	PMF60N380E7	600V / 380mΩ, TO-220F-3L

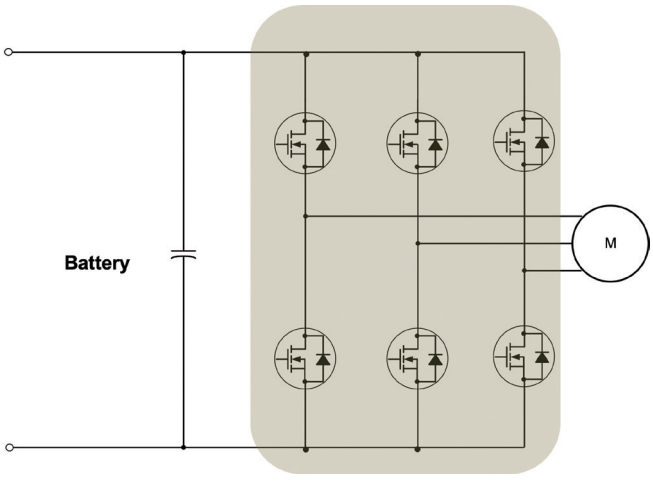
UPS & LV Motor Drives

Device Solution for UPS



UPS – DC-DC Stage		
150V *e*MOS	PSW15N5P9G1	150V / 5.9mΩ, TO-247-3L
200V *e*MOS	PSW20N9P7G1	200V / 9.7mΩ, TO-247-3L

Device Solution for LSEV, E-Scooter, E-Forklift



Three phase Inverter for LV Motor Drive		
150V *e*MOS	PSW15N5P9G1	150V / 5.9mΩ, TO-247-3L
200V *e*MOS	PSW20N9P7G1	200V / 9.7mΩ, TO-247-3L

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