

**Features**

- Zero reverse recovery
- Zero forward recovery
- Temperature independent switching behavior
- Positive temperature coefficient on  $V_F$
- Very low stray inductance
- Low noise switching
- RoHS compliant

**Applications**

- Welding equipment
- Uninterruptible power supply (UPS)
- High frequency power supply
- Induction heating
- High speed rectifiers

**Maximum Ratings**

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage@ $T_j=25^\circ\text{C}$	$V_{RRM}$	1200	V
DC Blocking Voltage@ $T_j=25^\circ\text{C}$	$V_{DC}$	1200	V
Continuous forward Current	@ $T_C=25^\circ\text{C}$	60	A
	@ $T_C=125^\circ\text{C}$	30	
	@ $T_C=135^\circ\text{C}$	25	
Non-repetitive Peak Forward Surge Current @ $T_C=25^\circ\text{C}$ , $t_p=10\text{ms}$ , Half Sine Pulse	$I_{FSM}$	215	A
$I^2t$ Value, $T_C=25^\circ\text{C}$ , $T_P=10\text{ms}$	$\int i^2 dt$	230	$\text{A}^2\text{S}$
Power Dissipation@ $T_C=25^\circ\text{C}$	$P_D$	155	W

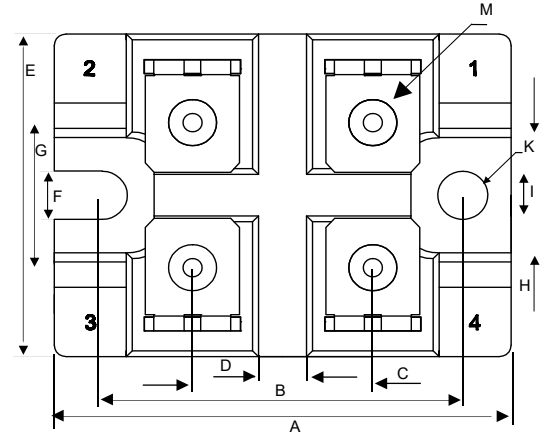
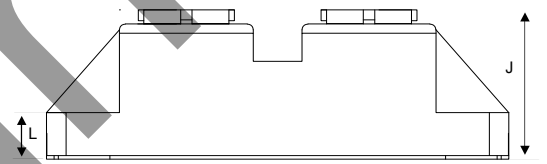
**Circuit Diagram**



**1200V  
SiC Diode  
Power Module**

**VDC 1200V**  
**I<sub>F</sub> 2x30A**

FJ



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.484	1.508	37.50	38.50	
B	1.169	1.193	29.50	30.50	
C	0.579	0.602	14.50	15.50	
D	0.146	0.169	3.50	4.50	
E	1.091	1.114	27.50	28.50	
F	0.154	0.177	3.70	4.70	
G	0.484	0.508	12.10	13.10	
H	0.382	0.406	9.50	10.50	
I	0.130	0.154	3.10	4.10	
J	0.492	0.516	12.30	13.30	
K	0.165		4.20		∅
L	0.146	0.169	3.50	4.50	
M	0.157		4.00		

**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Typ.	Max.	Units
Forward Voltage	$V_F$	$I_F=30A, T_J=25^\circ C$	1.36	1.7	V
		$I_F=30A, T_J=175^\circ C$	1.72		V
Reverse Leakage Current	$I_R$	$V_R=1200V, T_J=25^\circ C$	1.4	100	$\mu A$
		$V_R=1200V, T_J=175^\circ C$	4.13		$\mu A$
Total Capacitive Charge	$Q_C$	$V_R=800V$	168		nC
Total capacitance	C	$V_R=1V, f=1MHz$	1820		pF
		$V_R=400V, f=1MHz$	158		pF
		$V_R=800V, f=1MHz$	118		pF
Capacitance Stored Energy	$E_C$	$V_R=800V$	44		$\mu J$

**● Module Characteristics**

**TC=25° C unless otherwise specified**

Parameter	Symbol	Conditions	Value			Unit
			Min.	Typ.	Max.	
Thermal Resistance Junction-to-Heatsink	$R_{thjc}$	Per Leg		0.94		K/W
Operating junction and Storage Temperature	$T_j$		-40		175	°C
Storage Temperature	$T_{stg}$		-40		125	°C
Mounting torque	$T_M$	To Sink Recommended (M4)	1.0		1.5	Nm
Mounting torque	$T_M$	To Terminal Recommended (M4)	1.0		1.5	Nm
Weight of Module	W			32		g
Isolation Voltage	$V_{isol}$	AC,50HZ(R.M.S),t=3s	3600			V

## Curve Characteristics

Fig1. Forward Characteristics

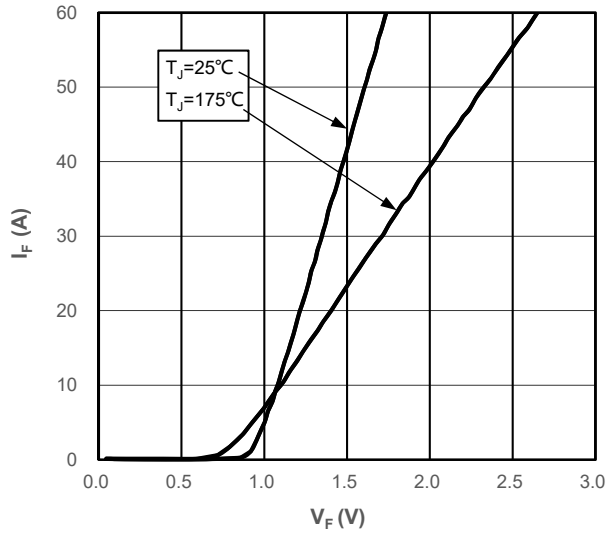


Figure2. Reverse Characteristics

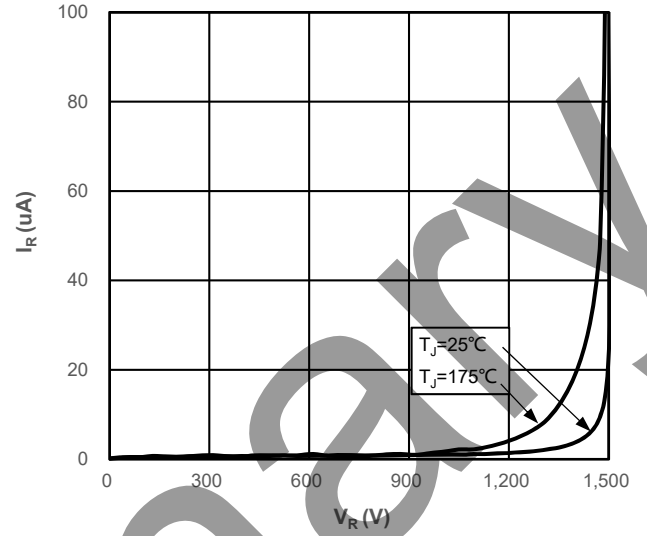


Figure3. Current Derating

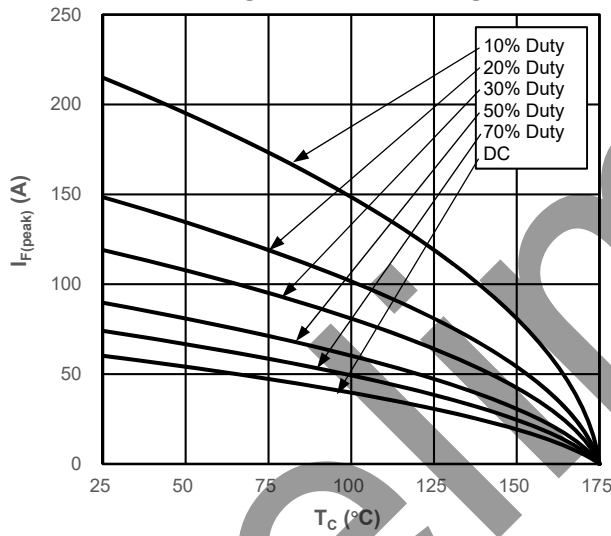


Fig4. Power Derating

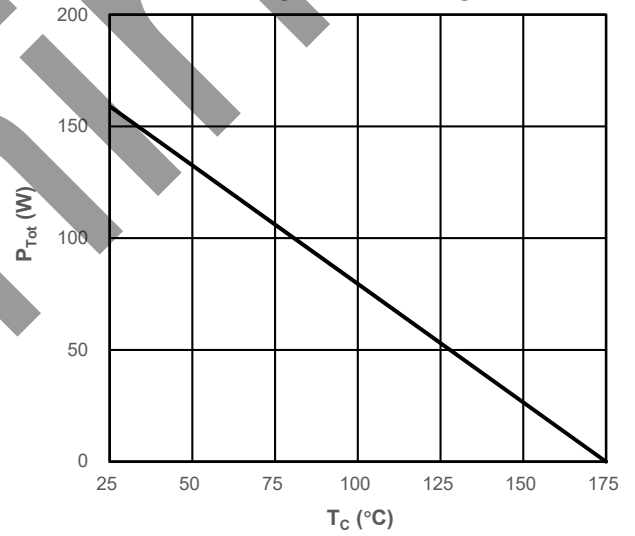


Fig5. Recovery Charge vs. Reverse Voltage

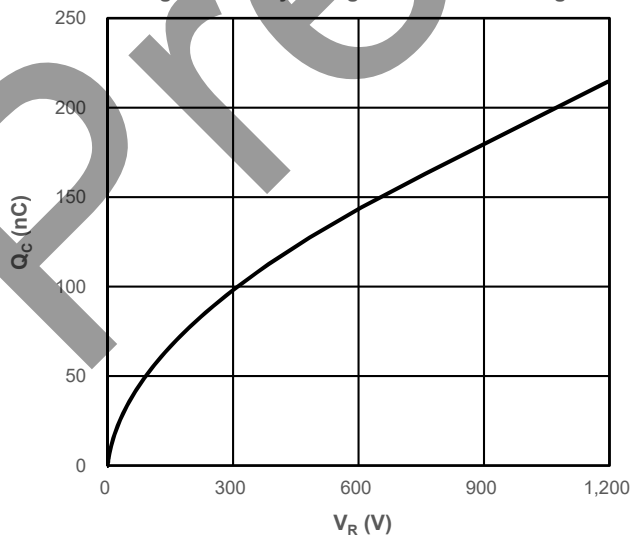
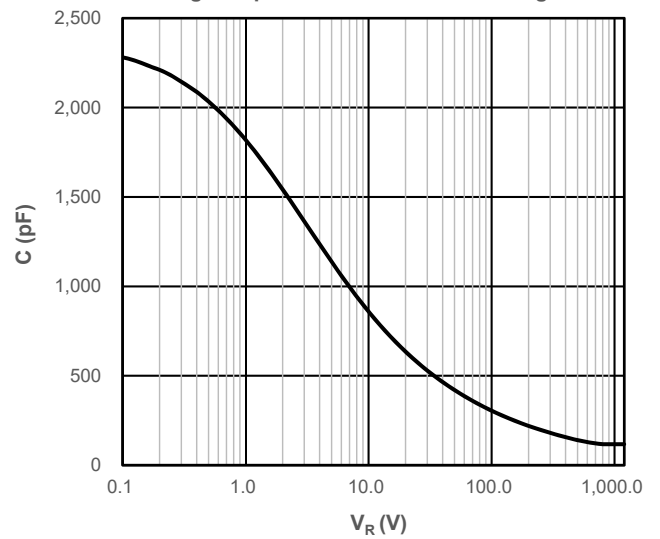
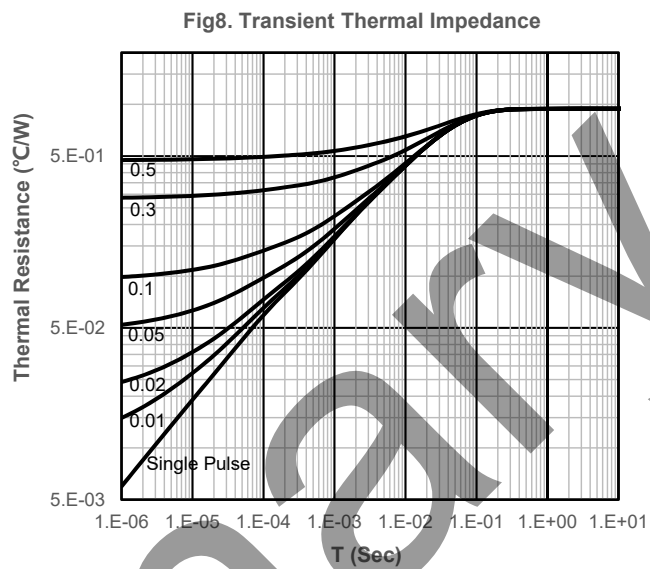
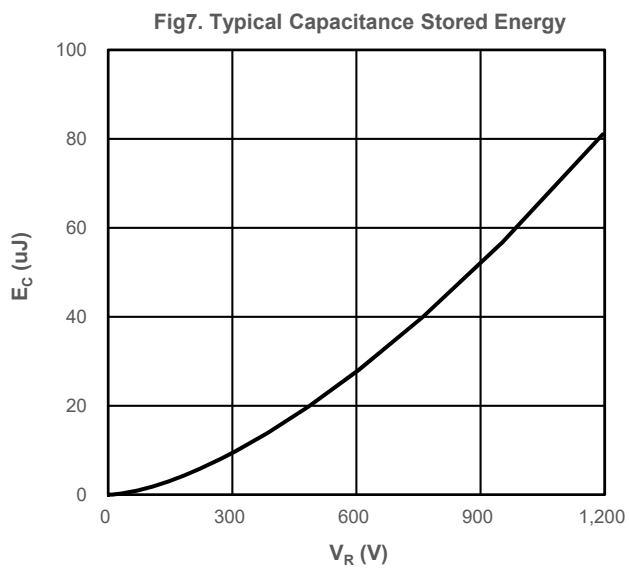


Fig6. Capacitance vs. Reverse Voltage



Curve Characteristics



Preliminary

## Ordering Information

Device	Packing
Part Number-BP	Bulk: 25pcs/Box ; 125pcs/Ctn

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