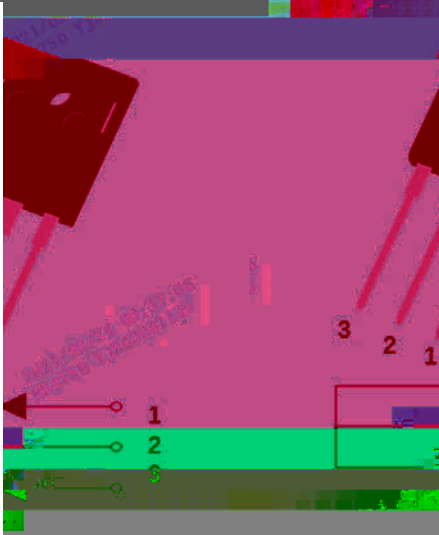


Silicon Carbide Schottky Diode

V_{RRM}	1200V
I_F 135°C	66A ⁽²⁾
Q_C	228nC ⁽²⁾



Features

- Positive temperature coefficient
- Temperature-independent switching
- Maximum working temperature at 175 °C
- Unipolar devices and zero reverse recovery current
- Zero forward recovery current
- Essentially no switching losses
- Reduction of heat sink requirements
- High-frequency operation
- Reduction of EMI

Typical Applications

Typical applications are in power factor correction(PFC), solar inverter, uninterruptible power supply, motor drives, photovoltaic inverter, electric car and charger.

Mechanical Data

Package: TO-247AB

Terminals: Tin plated leads

Polarity: As marked

Maximum Ratings ($T_c=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
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Device marking code 1200

Continuous forward current @ $T_c=25^\circ\text{C}$ (Per Leg/Device)	I_F	A	70/140
Continuous forward current @ $T_c=135^\circ\text{C}$ (Per Leg/Device)			33/66
Continuous forward current @ $T_c=157^\circ\text{C}$ (Per Leg/Device)			20/40- % M Device)

i^2t Value @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$	i^2t	A^2S	128 ⁽¹⁾
Operating junction and Storage temperature range	T_j, T_{stg}	$^\circ\text{C}$	-55 to +175

(1)Per Leg, (2)Per Device



Electrical Characteristics (Per Leg)

PARAMTETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
Forward voltage drop	V_F	V	$I_F=20A, T_j=25^{\circ}C$	1.34	1.55
			$I_F=20A, T_j=175^{\circ}C$	1.86	2.70
Reverse leakage current	I_R	μA	$V_R=1200V, T_j=25^{\circ}C$	0.5	25
			$V_R=1200V, T_j=175^{\circ}C$	5	-

Typical Characteristics (Device)

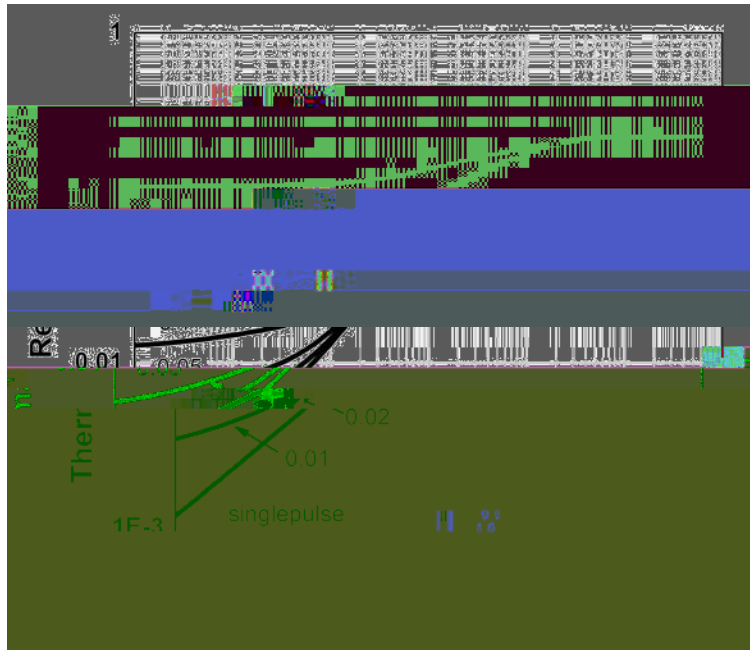
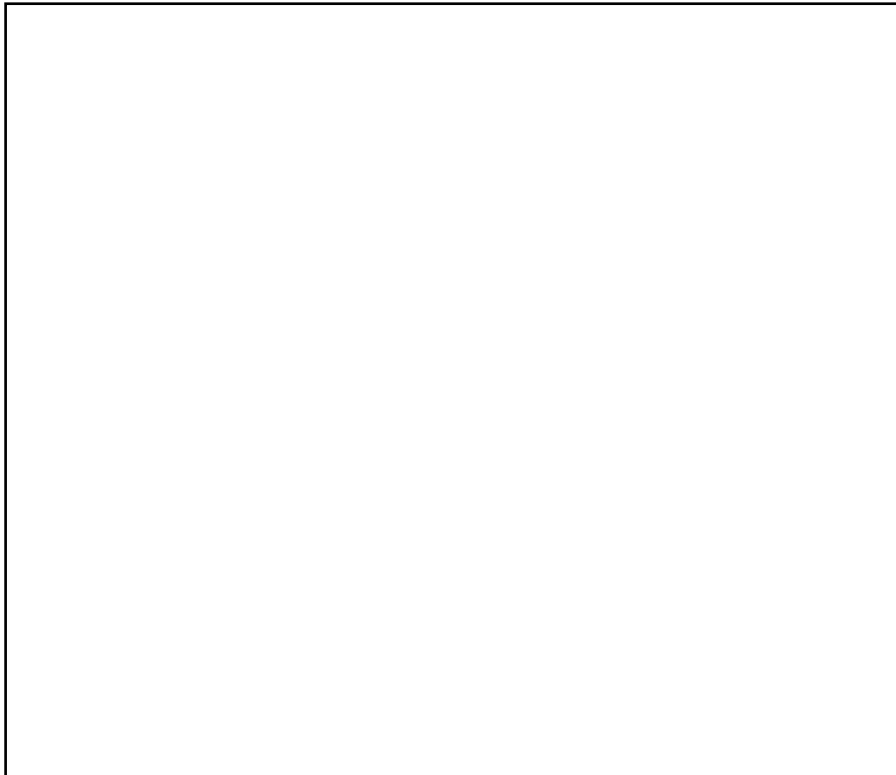


Figure 8. Transient Thermal Impedance



Outline Dimensions



TO-247AB		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.0	1.4
b2	1.91	2.21
C	0.5	0.7
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.0	13.6
E2	4.80	5.20
E3	2.30	2.70
L	19.62	20.22
L1	-	4.30
P	3.40	3.80
P1		7.30
S	6.15TYP	
H1	5.44TYP	
b3	2.80	3.20



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