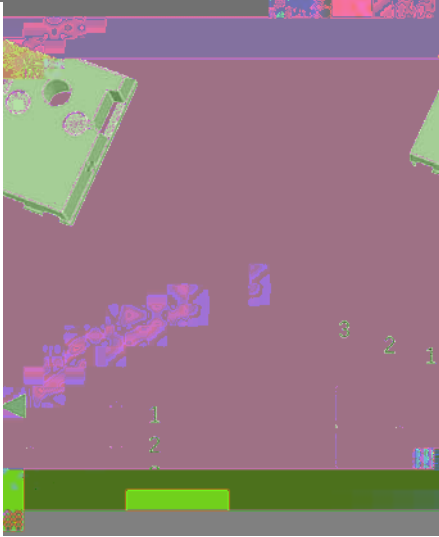


Silicon Carbide Schottky Diode

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°C (Per Leg/Device)	I_F	A	70/140
Continuous forward current @ T _c =135°C (Per Leg/Device)			33/66
Continuous forward current @ T _c =157°C (Per Leg/Device)			20/40- % M Device)

i^2t Value@ T _c =25°C ,tp=10ms	i^2t	A ² S	128 ⁽¹⁾
Operating junction and Storage temperature range	T _j , T _{stg}	°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)

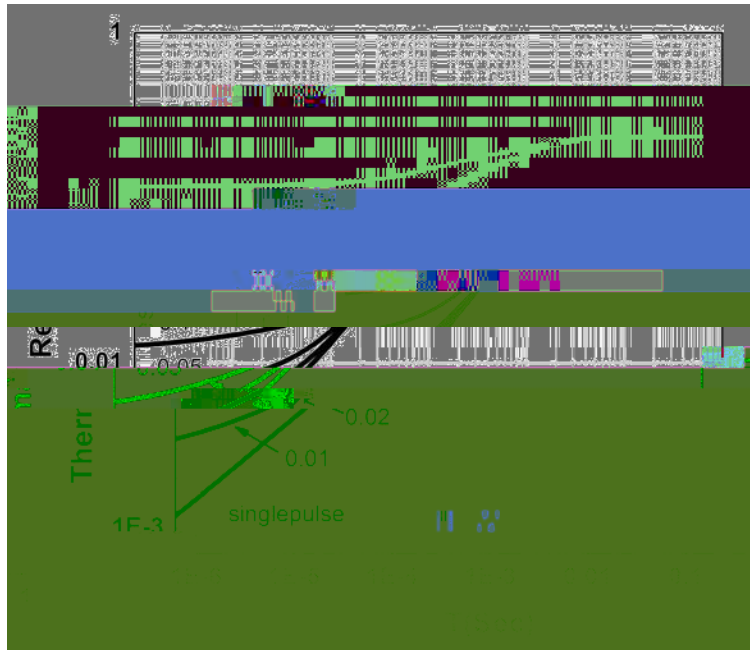
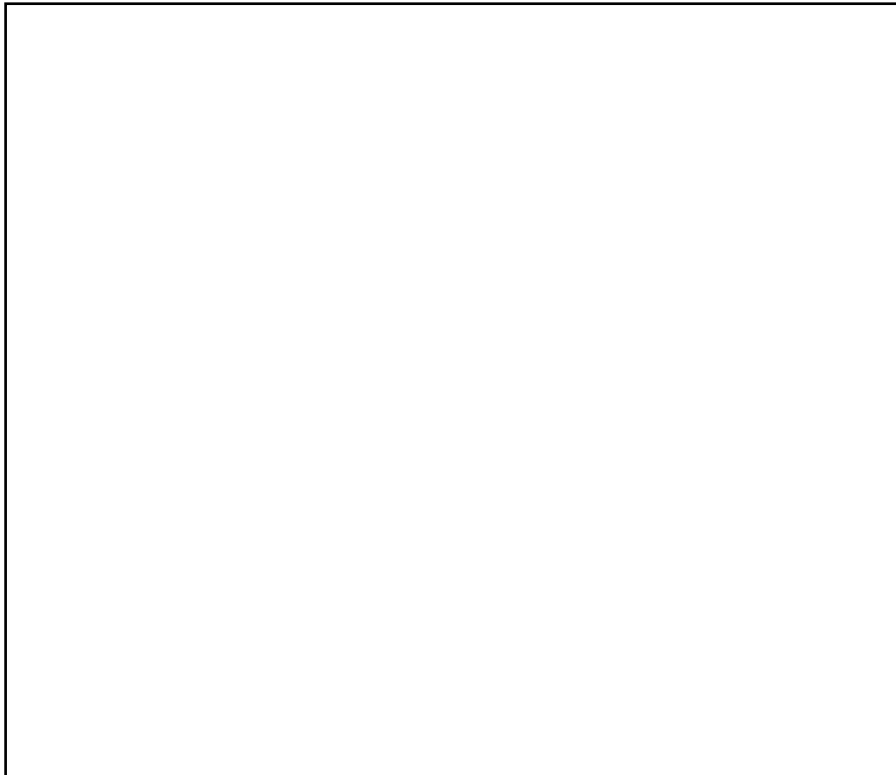


Figure 8. Transient Thermal Impedance



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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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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