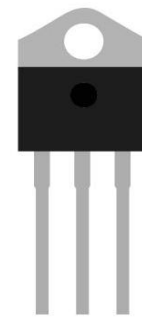


20A, 1200V SIC Schottky Rectifier

FEATURES

- 1200V schottky rectifier
- Electrically isolated package
- Lower heatsink dependent
- Ceramic package provides 2.5KV isolation
- Zero reverse recovery current
- Zero forward recovery voltage
- Switching characteristics independent on temperature
- Positive temperature coefficient of forward voltage
- High temperature soldering guaranteed: 270°C/10 seconds
- RoHS compliant, halogen free

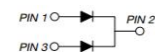
TO-3P



RoHS
COMPLIANT

HALOGEN
FREE

1 2 3



MECHANICAL DATA

- Case: TO-3P
- Case material: molding compound meets UL 94V-0 flammability rating

TYPICAL APPLICATION

General purpose use in HAVC, SMPS, AC/DC converters, free wheeling diodes in inverter stages.

MAXIMUM RATINGS

$T_J=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Cotinuous Forward Current($T_C=150^\circ\text{C}$)	I_F	20	A
Repetitive Peak Forward Surge Current ($t_p=10\text{ms}, T_C=25^\circ\text{C}$)	I_{FRM}	50	A
Peak Forward Surge Current ($t_p=10\text{ms}, T_C=25^\circ\text{C}$)	I_{FSM}	80	A
Non-repetitive Peak Forward Surge Current ($t_p=10\text{ms}, T_C=25^\circ\text{C}$)	I_{FMAX}	600	A
Power Dissipation $T_C=25^\circ\text{C}$ $T_C=110^\circ\text{C}$	P_{tot}	153 66	W
Operating Junction Temperature Range	T_J	-55 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

$T_J=25^\circ\text{C}$ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=10\text{A}$	$T_J=25^\circ\text{C}$	V_F	1.5	1.8	V
	$T_J=175^\circ\text{C}$		2.2	3.0	
Reverse Current @ V_{RRM}	$T_J=25^\circ\text{C}$	I_R	2	5	μA
	$T_J=175^\circ\text{C}$		20	40	
Total Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C	610	-	pF
	$V_R=400\text{V}, f=1\text{MHz}$		46	-	
	$V_R=800\text{V}, f=1\text{MHz}$		36	-	
Total Capacitance Charge	$V_R=800\text{V}$	Q_C	50	-	nC
Capacitance Stored Energy	$V_R=800\text{V}$	E_C	25	-	μJ
Thermal Resistance	Junction to case	$R_{\theta JC}$	1.8		$^\circ\text{C}/\text{W}$

RATINGS AND CHARACTERISTIC CURVES

FIG.1: Forward Characteristics

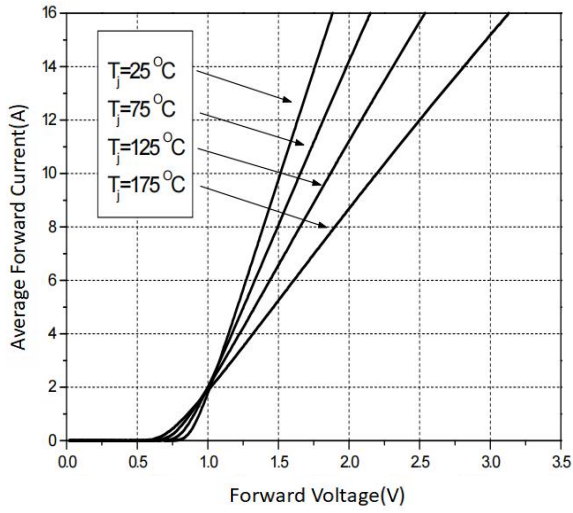


FIG.2: Reverse Characteristics

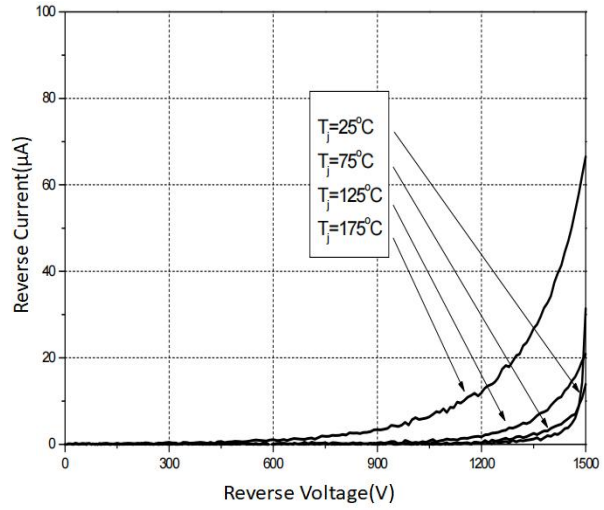


FIG.3: Capacitance Charge vs. Reverse Voltage

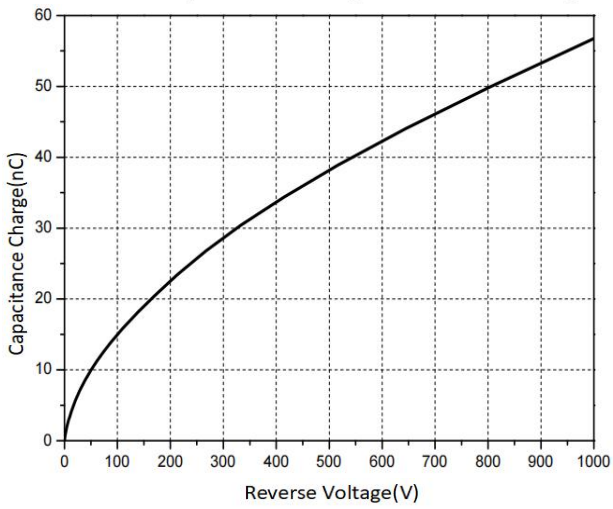


FIG.4: Capacitance Stored Energy

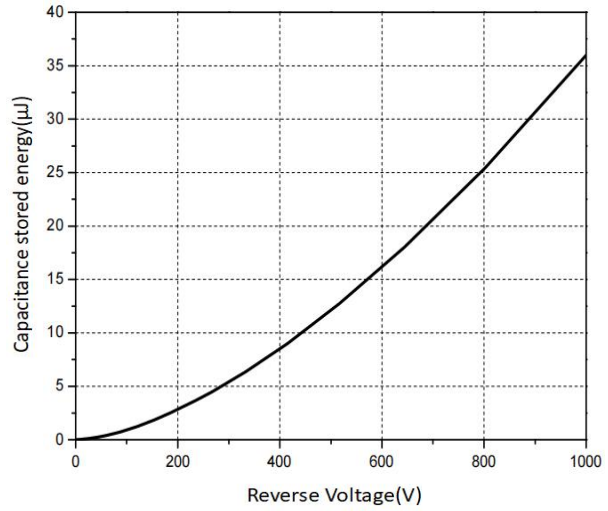


FIG.5: Power Derating

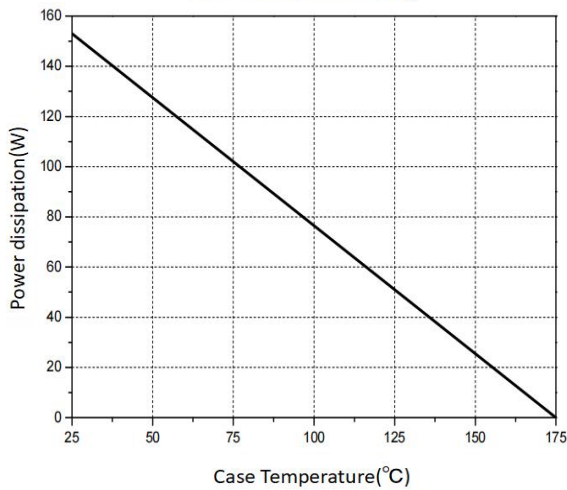
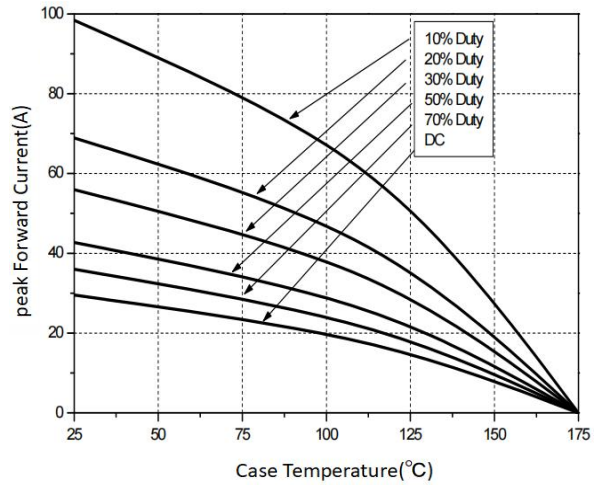
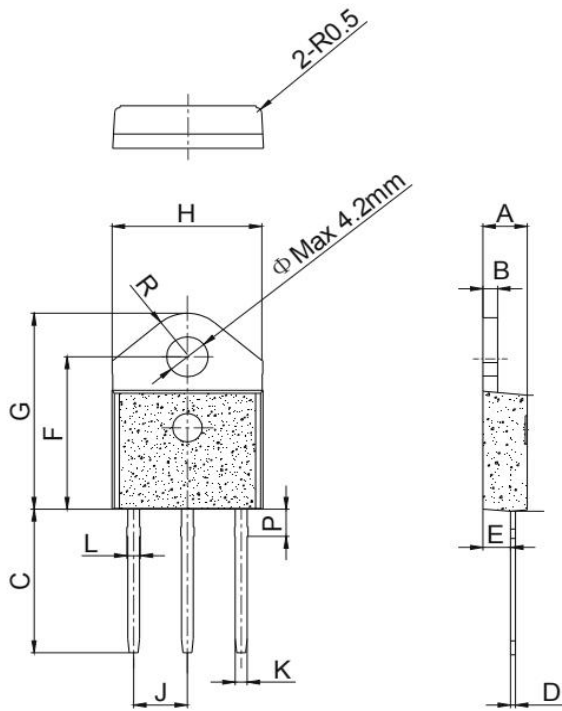


FIG.6: Current Derating



20A, 1200V SIC Schottky Rectifier

PACKAGE OUTLINE DIMENSIONS



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.50		0.70	0.020		0.028
E	2.70		2.90	0.106		0.114
F	15.80		16.50	0.622		0.650
G	20.40		21.10	0.803		0.831
H	15.10		15.50	0.594		0.610
J	5.40		5.65	0.213		0.222
K	1.10		1.40	0.043		0.055
L	1.35		1.50	0.053		0.059
P	2.80		3.00	0.110		0.118
R		4.35			0.171	

PACKING INFORMATION

Package	Tube(PCS)	Inner Box(PCS)	Carton(PCS)
TO-3P	30	450	2,250