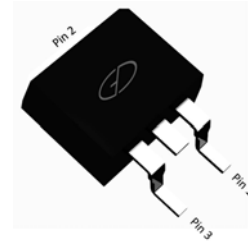


Features

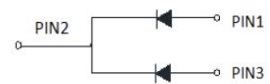
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability



TO-263(D²PAK)

Mechanical Data

- Case: TO-263 (D²PAK)
 Molding compound meets UL 94 V-0 flammability rating, RoHS-Compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102



Schematic Diagram

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	45	V
Average Rectified Output Current @ 60Hz Half - Sine Wave, R-Load, T _A (Figure 1)	I _O	30	A
Surge (Non - Repetitive) Forward Current @ 60Hz Half Sine - Wave, 1 Cycle, T _A =25°C	I _{FSM}	250	A
Current Squared Time @ 1ms ≤ t ≤ 8.3ms, T _J =25°C, Rating of Per Diode	I ² t	259	A ² S
Thermal Resistance Between Junction and Case	R _{θJC}	2.0	°C/W
Junction Temperature	T _J	-55 to +150	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Value	Unit
Maximum Instantaneous Forward Voltage Drop Per Diode	V _{FM}	I _{FM} =15.0A	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Diode	I _{RRM1}	V _{RM} =V _{RRM} , T _A =25°C	0.2	mA
	I _{RRM2}	V _{RM} =V _{RRM} , T _A =100°C	50	

Typical Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

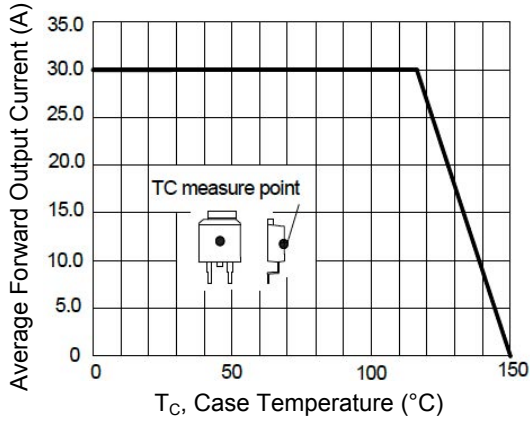


Figure 1. $I_o - T_c$ Curve

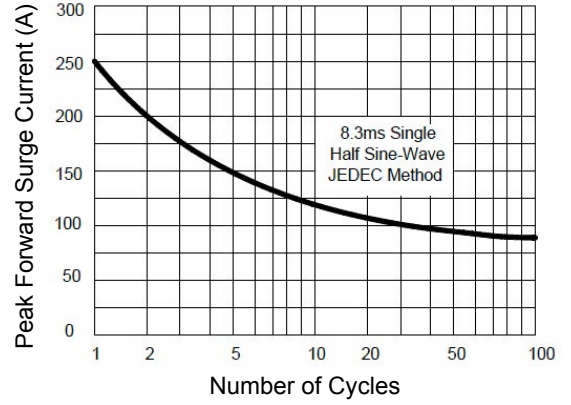


Figure 2. Surge Forward Current Capability

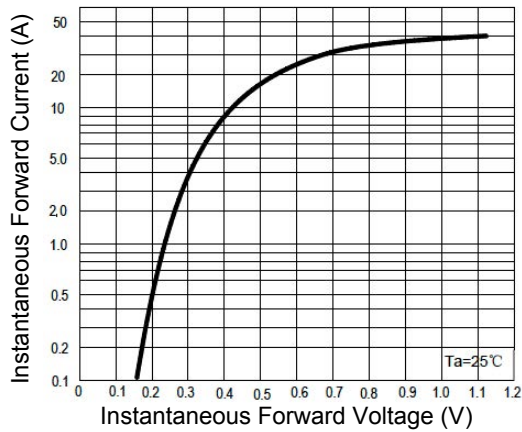


Figure 3. Forward Voltage

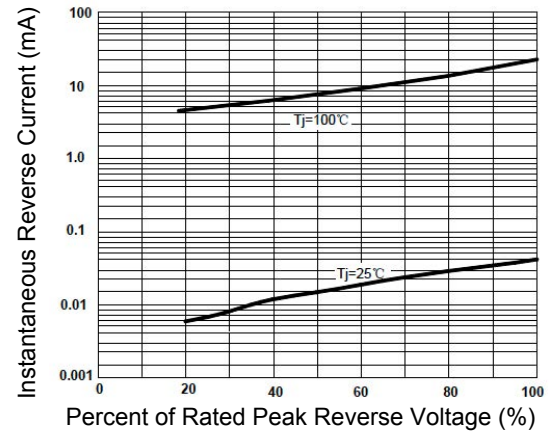
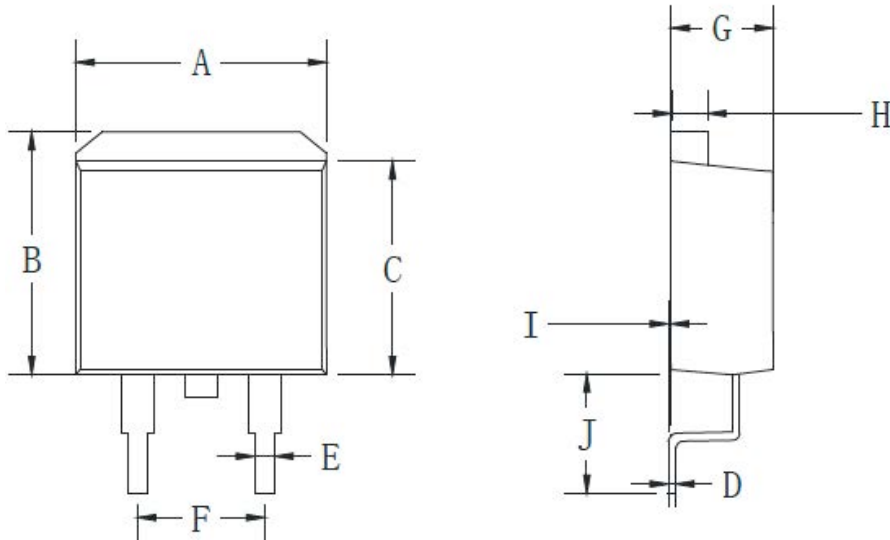


Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (TO-263/D²PAK)



Symbol	Dimensions in Millimeters	
	Min	Max
A	9.50	11.50
B	9.70	10.50
C	8.40	9.00
D	0.28	0.64
E	0.68	0.94
F	4.55	5.60
G	4.04	5.10
H	1.14	1.40
I	0.00	0.20
J	4.90	6.05