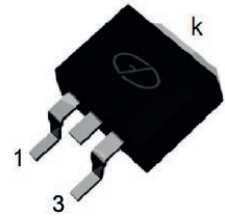
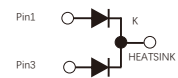


Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed: 260°C/10 seconds
- Component in accordance to RoHS 2015/863/EU



Package: TO-263



Schematic Diagram

Mechanical Data

- Case: JEDEC TO-263 molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting position: Any

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.)

Parameters	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS Voltage	V_{RMS}	105	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current See Figure 1.	Per leg	10.0	A
	Total device	20.0	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200.0	A
Maximum Instantaneous Forward Voltage at 10.0A	V_F	0.90	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	20	μA
	$T_A=125^\circ\text{C}$	3	mA
Typical Thermal Resistance ²	$R_{\theta JC}$	2.5	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to+150	$^\circ\text{C}$

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Thermal resistance from junction to case

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

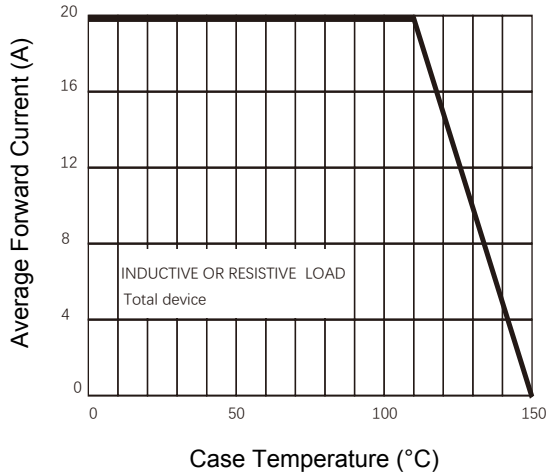


Figure 1. Forward Current Derating Curve

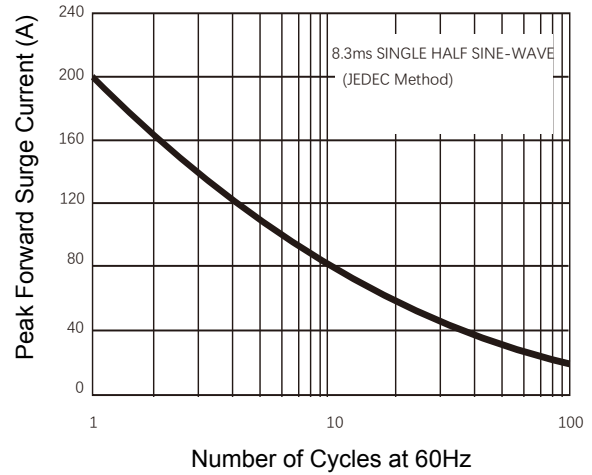


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

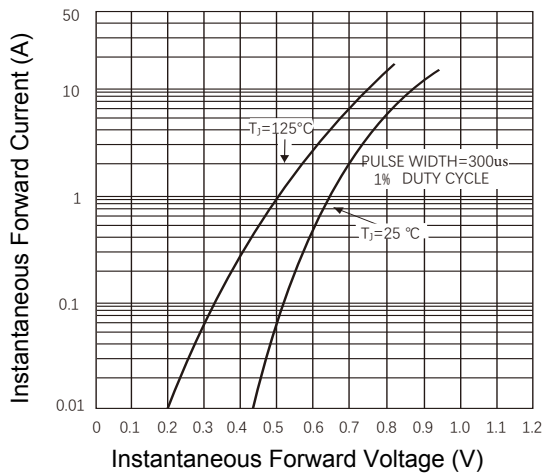


Figure 3. Typical Instantaneous Forward Characteristics (Per Leg)

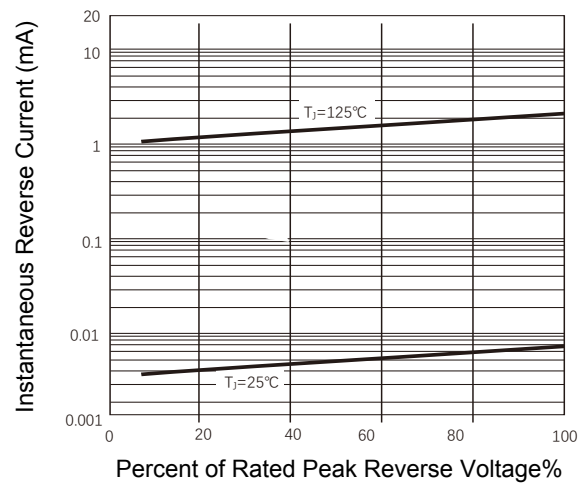
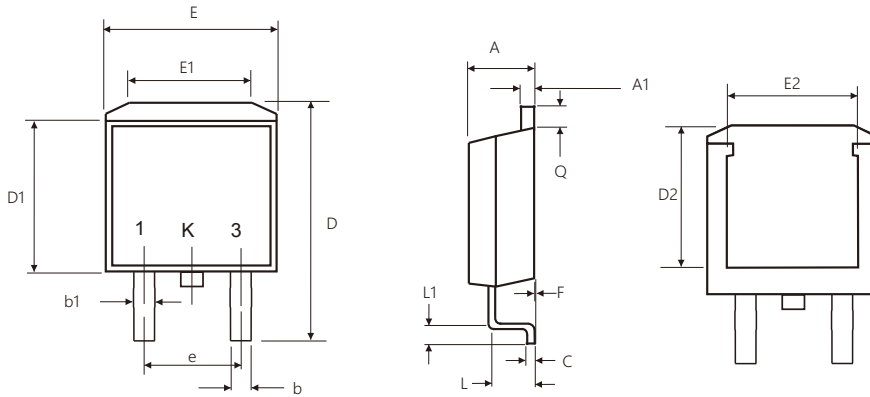


Figure 4. Typical Reverse Characteristics (Per Leg)

Package Outline Dimensions (TO-263)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.06	4.83	0.160	0.190
A1	1.14	1.40	0.045	0.055
e	4.98	5.18	0.196	0.204
b	0.69	0.94	0.027	0.037
b1	1.20	1.34	0.047	0.053
C	0.35	0.46	0.014	0.018
D	14.22	16.22	0.560	0.639
D1	8.13	9.14	0.320	0.360
E	9.65	10.67	0.380	0.420
E1	6.22	-	0.245	-
L	2.67	3.40	0.105	0.134
L1	2.29	3.32	0.090	0.131
Q	0.92	1.68	0.036	0.066
F	0.02	0.30	0.001	0.012
D2	7.20	7.80	0.283	0.307
E2	7.60	8.20	0.299	0.323