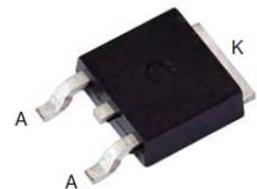


Features

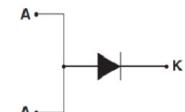
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



Package: TO-252(D-PAK)

Mechanical Data

- Case: Epoxy, Molded
- Weight: 0.4grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 2500 units per reel



Schematic Diagram

Maximum Ratings & Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	--	60	V
Working Peak Reverse Voltage	V_{RWM}	--	60	V
Maximum DC Blocking Voltage	V_{DC}	--	60	V
Maximum Average Forward Rectified Current at $T_c=105^\circ\text{C}$ Total Device per Diode	$I_{F(AV)}$	--	5	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode	I_{FSM}	--	100	A
Peak Repetitive Reverse Current per Leg at $t_p=2.0\mu\text{s}$, 1KHz	I_{RRM}	--	1.0	A
Voltage Rate of Change(rated V_R)	DV/dt	--	10000	V/us
Operating Junction Temperature Range	T_J	--	-55 to +150	°C
StorageTemperature Range	T_{STG}	--	-55 to +150	°C
Isolation Voltage (ITO-220-AB only) from Terminal to Heatsink $t = 1 \text{ sec}$	V_{AC}	--	1500	V
Maximum Instantaneous Forward Voltage per Leg	V_F	$I_F=5\text{A} \quad T_c=25^\circ\text{C}$	0.70(0.65 typ)	V
		$I_F=5\text{A} \quad T_c=125^\circ\text{C}$	0.62	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	I_R	$T_J=25^\circ\text{C}$	200	uA
		$T_J=100^\circ\text{C}$	15	mA

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

Parameter	Symbol	TYP.	Unit
Thermal Resistance, Junction to Case per Leg	$R_{\theta JC}$	4.5	°C /W
Thermal Resistance, Junction to Ambient per Leg	$R_{\theta JA}$	62.5	°C /W

Note: Pulse test:300us pulse width, duty cycle=2%

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

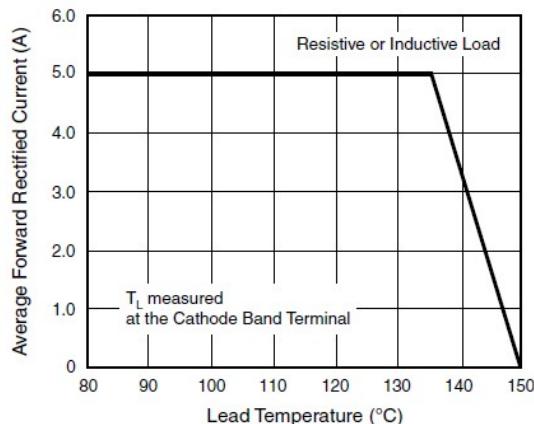


Fig. 1 - Maximum Forward Current Derating Curve

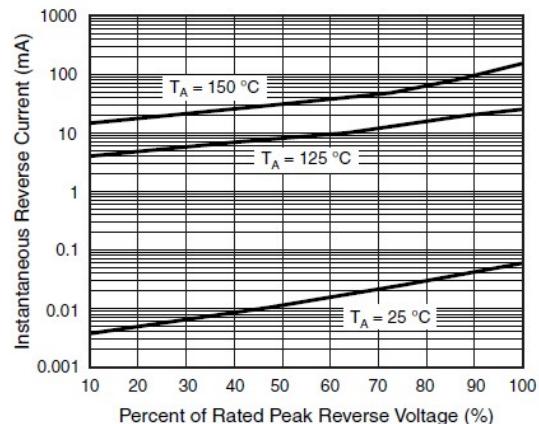


Fig. 4 - Typical Reverse Leakage Characteristics

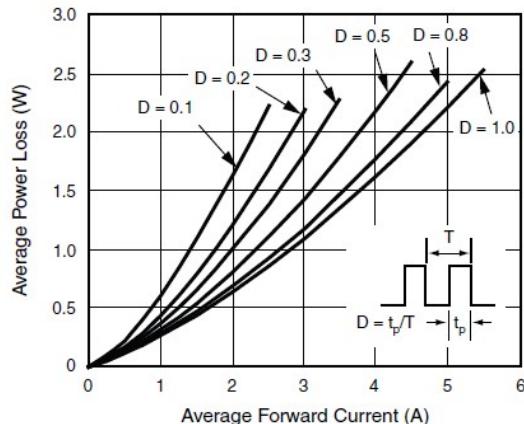


Fig. 2 - Forward Power Loss Characteristics

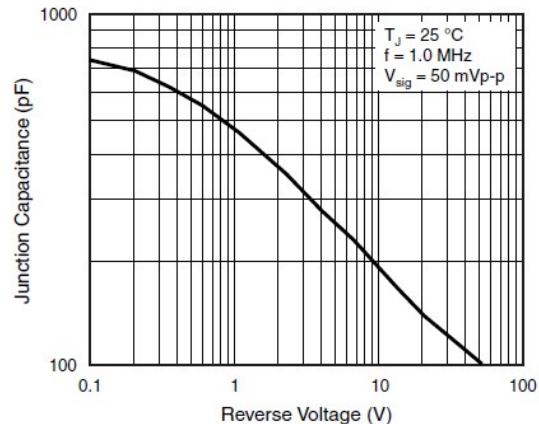


Fig. 5 - Typical Junction Capacitance

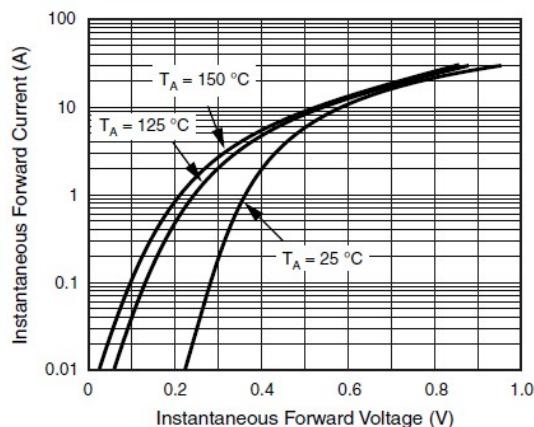


Fig. 3 - Typical Instantaneous Forward Characteristics

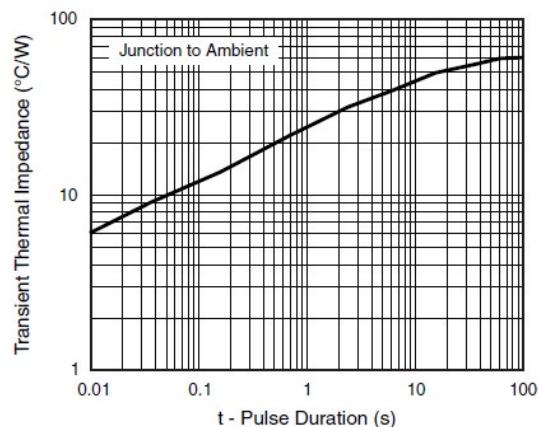


Fig. 6 - Typical Transient Thermal Impedance

Package Outline Dimensions

in millimeters

TO-252(D-PAK)

