

Features

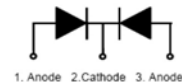
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- High efficiency operation
- Low forward voltage drop, low power losses



Package: TO-220-AB

Mechanical Data

- Case: epoxy, molded
- Weight: 1.9grams (approximately)
- Lead temperature for soldering purpose: 260°C max. for 10 sec
- 50 units per plastic tube



Schematic Diagram

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

Parameter	Symbol	Conditions	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}		100	V
Working Peak Reverse Voltage	V _{RWM}		100	V
Maximum DC Blocking Voltage	V _{DC}		100	V
Maximum Average Forward Rectified Current @ T _C =105°C-Total Device	I _{F(AV)}		40	A
Maximum Average Forward Rectified Current @ T _C =105°C-Per Diode			20	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode	I _{FSM}		200	A
Peak Repetitive Reverse Current Per Leg at tp=2.0μs, 1KHz	I _{RRM}		2	A
Voltage Rate of Change (rated V _R)	D _V /dt		10000	V/μs
Operating Junction Temperature Range	T _J		-55 To +150	°C
Storage Temperature Range	T _{STG}		-55 To +150	°C
Typical Instantaneous Forward Voltage Per Leg	V _F	I _F =10A, T _C =25°C	0.56	V
		I _F =20A, T _C =25°C	0.71	
Maximum Instantaneous Forward Voltage Per Leg	V _F	I _F =20A, T _C =25°C	0.76	V
		I _F =20A, T _C =125°C	0.69	
Maximum Reverse Current Per Leg At Working Peak Reverse Voltage	I _R	T _J =25°C	200	μA
		T _J =100°C	15	mA
Thermal Resistance, Junction to Case Per Leg	R _{θJC}		2	°C/W
Thermal Resistance, Junction to Ambient Per Leg	R _{θJA}		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)

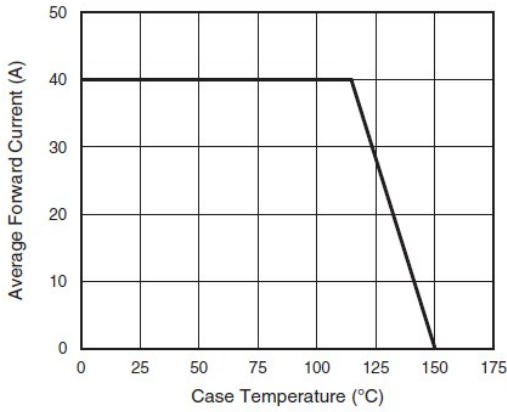


Fig. 1 - Forward Current Derating Curve

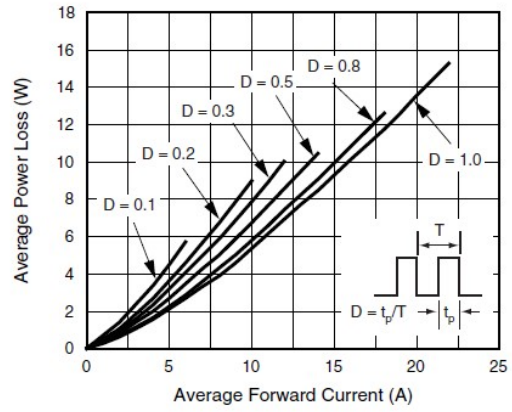


Fig. 2 - Forward Power Loss Characteristics Per Diode

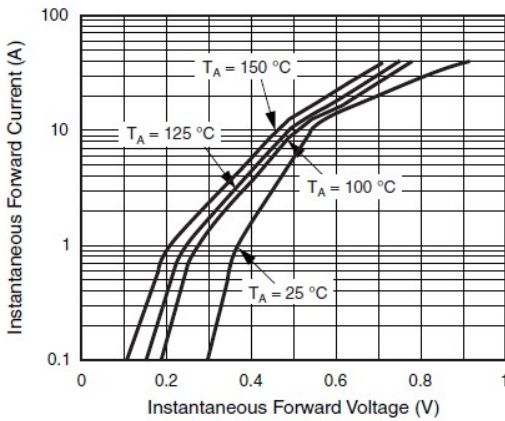


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

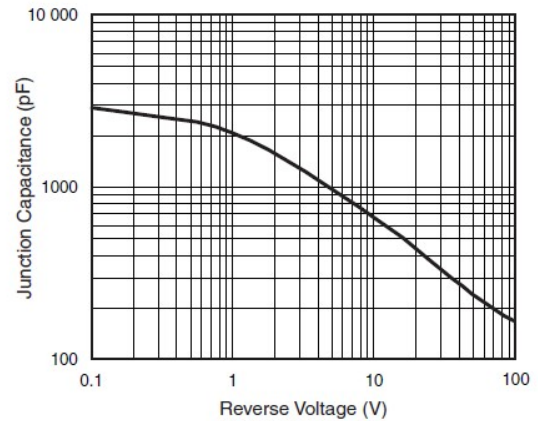


Fig. 5 - Typical Junction Capacitance Per Diode

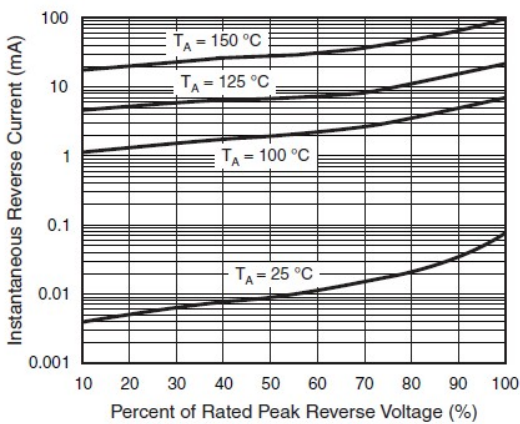


Fig. 4 - Typical Reverse Characteristics Per Diode

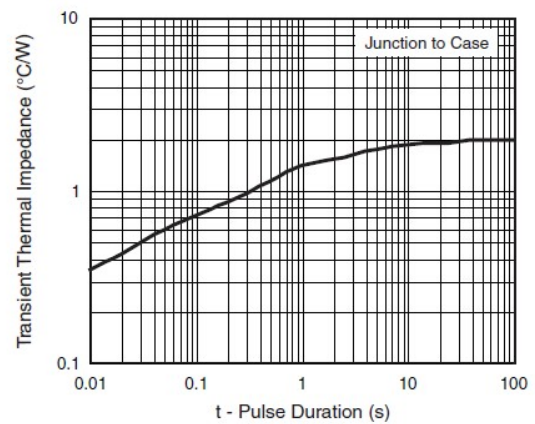


Fig. 6 - Typical Transient Thermal Impedance Per Diode

Package Outline Dimensions

in millimeters

TO-220-AB

