

Features

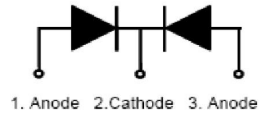
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guarding for over voltage protection



Package: TO-220-AB

Mechanical Data

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



Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MBR30200CT	UNIT
Maximum repetitive peak reverse voltage			V _{RRM}	200	V
Working peak reverse voltage			V _{RWM}	200	V
Maximum DC blocking voltage			V _{DC}	200	V
Maximum average forward rectified current at T _c =105°C total device per diode			I _{F(AV)}	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I _{FSM}	180	A
Peak repetitive reverse current per leg at t _p =2.0us, 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
Storage temperature range			T _{STG}	- 55 to +150	°C
Maximum instantaneous forward voltage per leg	I _F =15A I _F =15A	T _C =25°C T _C =125°C	V _F	1.2 0.91	V
Maximum reverse current per leg at working peak Reverse voltage		T _J =25°C T _J =100°C	I _R	200 20	uA mA
Thermal Characteristics T_A=25°C unless otherwise noted					
Symbol	Parameter		TYP.(TO-220-AB)		Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg		2.0		°C /W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg		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)

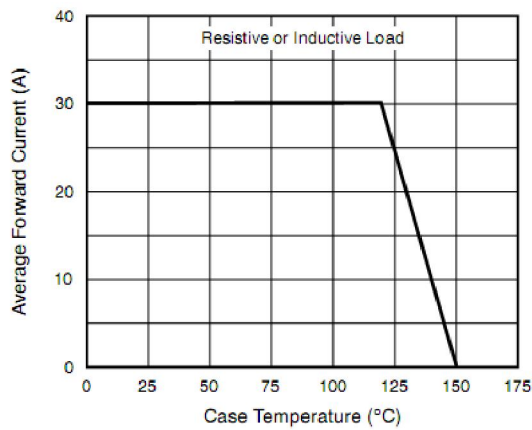


Figure 1. Forward Derating Curve

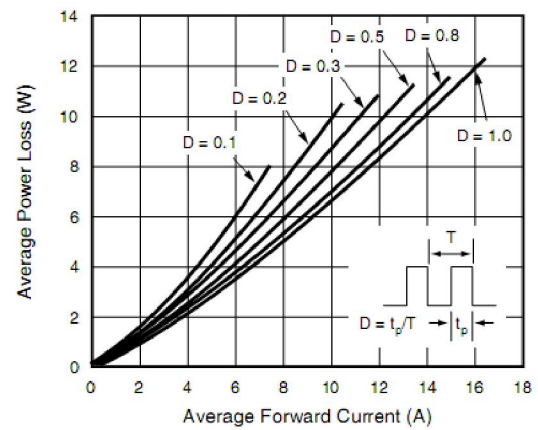


Figure 2. Forward Power Loss Characteristics Per Diode

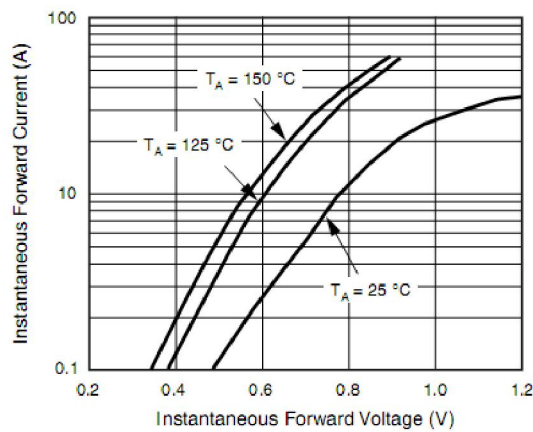


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

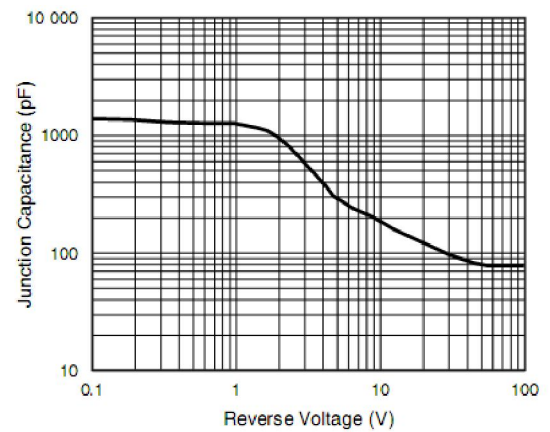


Figure 5. Typical Junction Capacitance Per Diode

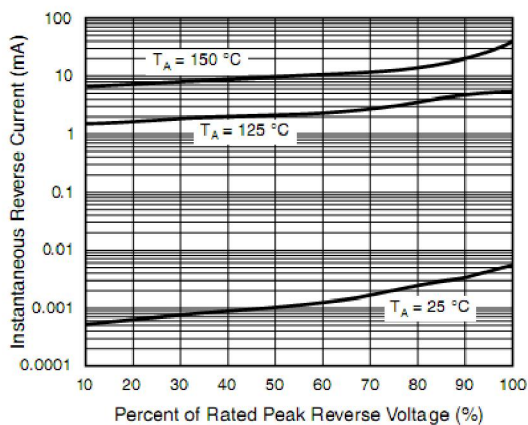


Figure 4. Typical Reverse Characteristics Per Diode

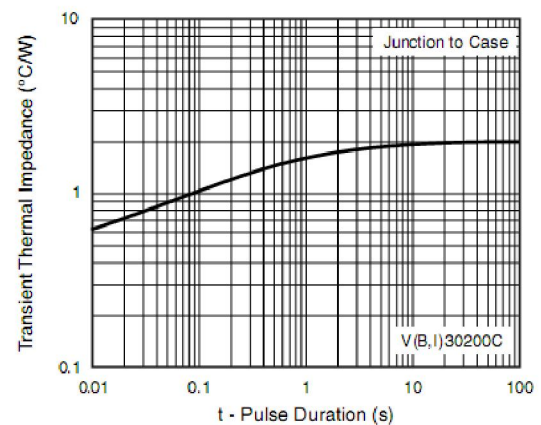


Figure 6. Typical Transient Thermal Impedance Per Diode

Package Outline Dimensions

Unit: millimeters

TO-220-AB

