



TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

B220 THRU B260

2.0A

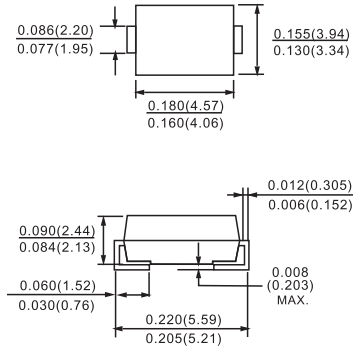
FEATURES

- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AA, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

DO-214AA(SMB)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	B220	B230	B240	B250	B260	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}							
Working Peak Reverse Voltage	V _{RWM}	20	30	40	50	60	V	
DC Blocking Voltage	V _R							
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	V	
Average Rectified Output Current @ T _T = 100°C	I _O	2.0						A
Non-Repetitive Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	50						A
Forward Voltage @ I _F = 2.0A	V _{FM}	0.50			0.70		V	
Peak Reverse Current at Rated DC Blocking Voltage @ T _A = 25°C @ T _A = 100°C	I _{RM}				0.5 20		mA	
Typical Total Capacitance (Note 2)	C _T	200					pF	
Typical Thermal Resistance, Junction to Terminal	R _{JT}	20					°C/W	
Typical Thermal Resistance, Junction to Ambient (Note 1)	R _{JA}	25					°C/W	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150					°C	

- Notes: 1. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
3. RoHS revision 13.2.2003. High Temperature Solder Exemption Applied, see EU Directive Annex Note 7.



FIG.1 – FORWARD DERATING CURVE

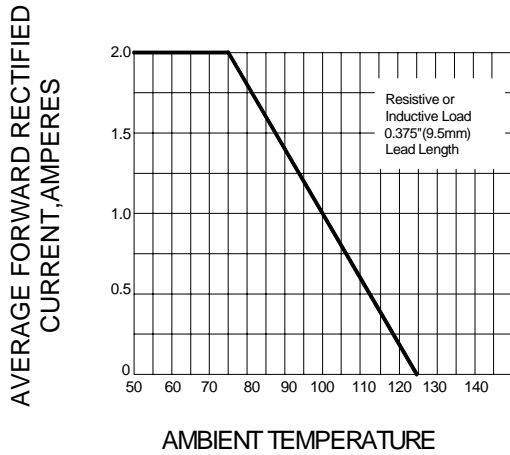


FIG.2 – TYPICAL FORWARD CHARACTERISTICS

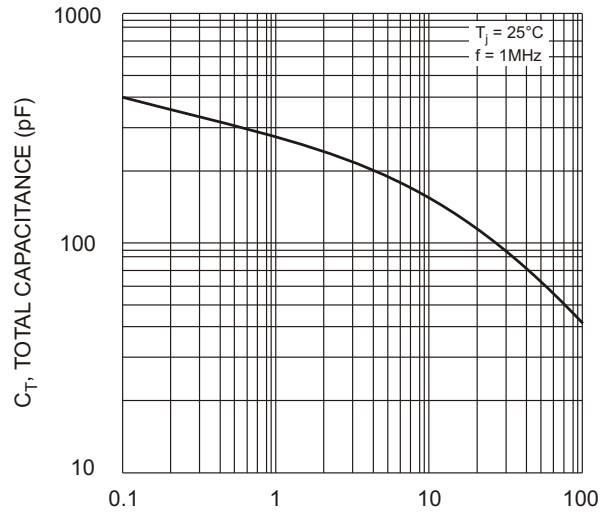
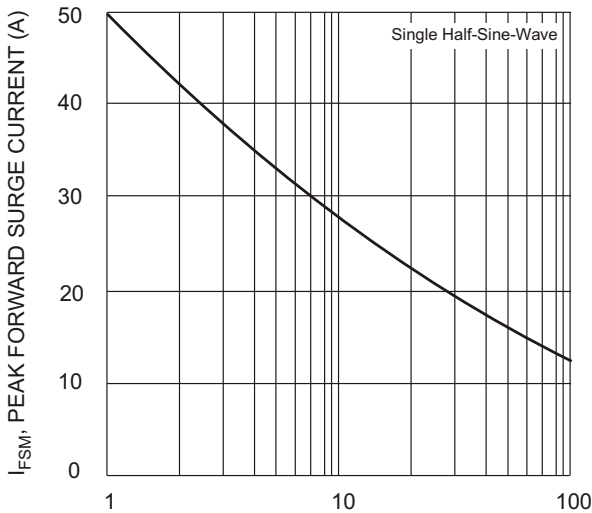
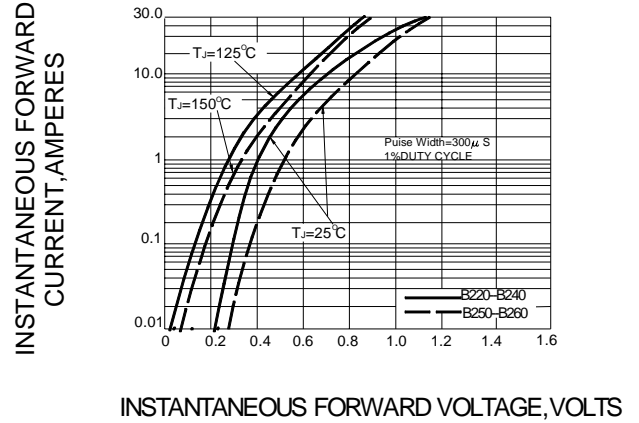


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

Fig. 4 Typical Total Capacitance

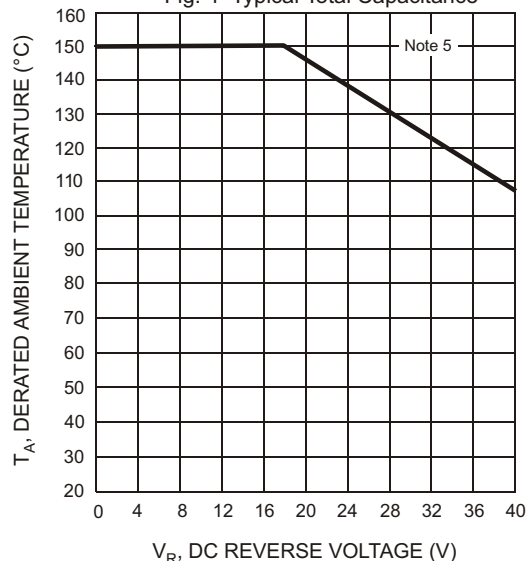
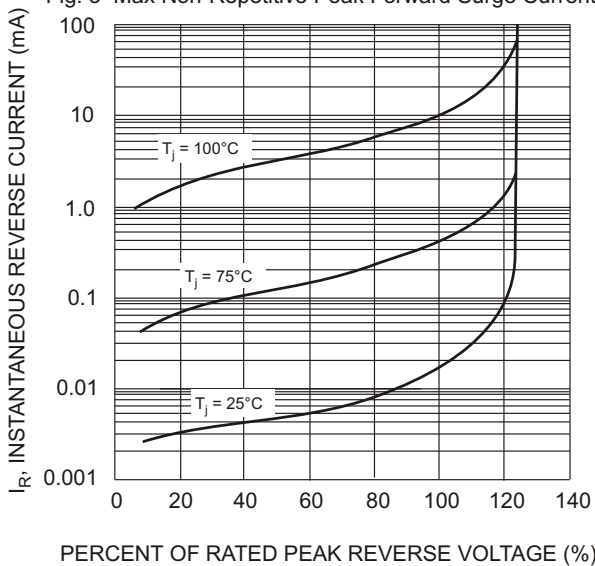


Fig. 5 Typical Reverse Characteristics

Fig. 6 Operating Temperature Derating (B240)