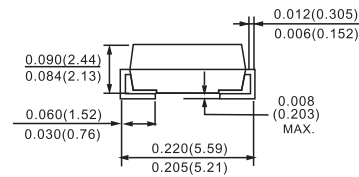
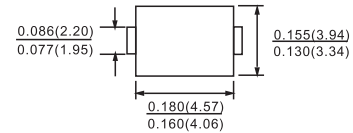


### FEATURES

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

DO-214AA(SMB)



Dimensions in inches and (millimeters)

### 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

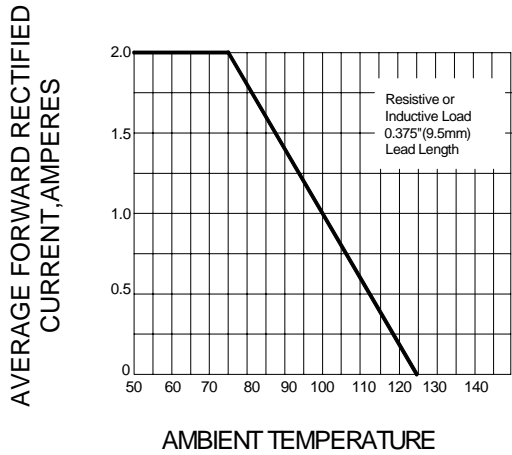
### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

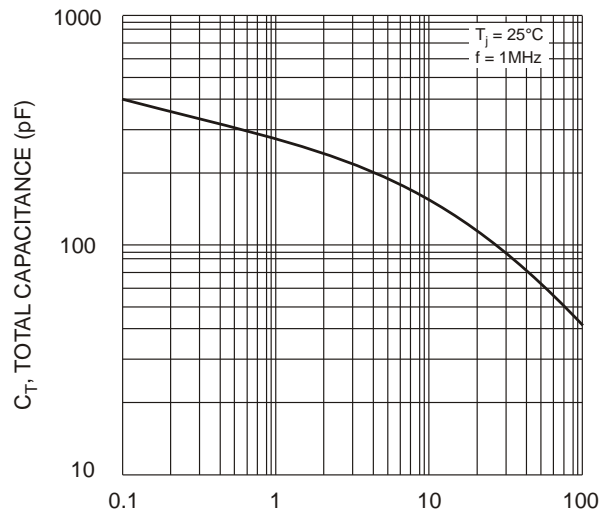
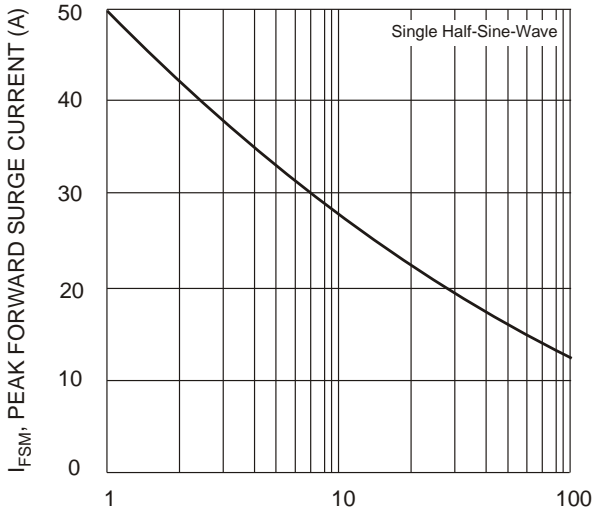
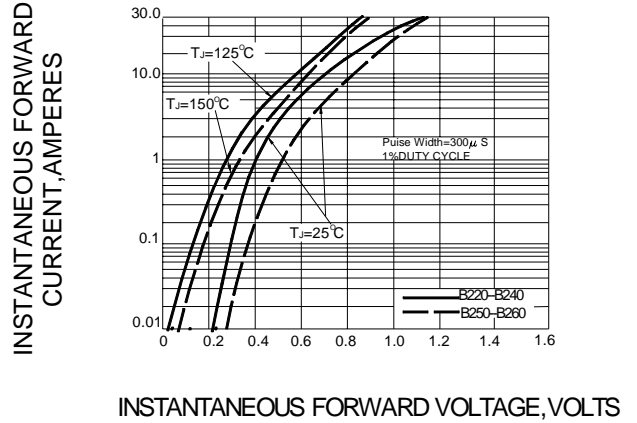
Characteristic	Symbol	B220	B230	B240	B250	B260	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	V
Average Rectified Output Current @ T <sub>T</sub>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

- Notes: 1. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm<sup>2</sup> (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**

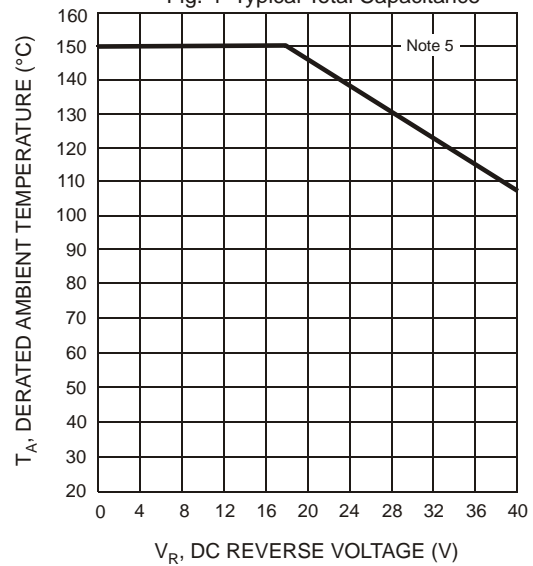
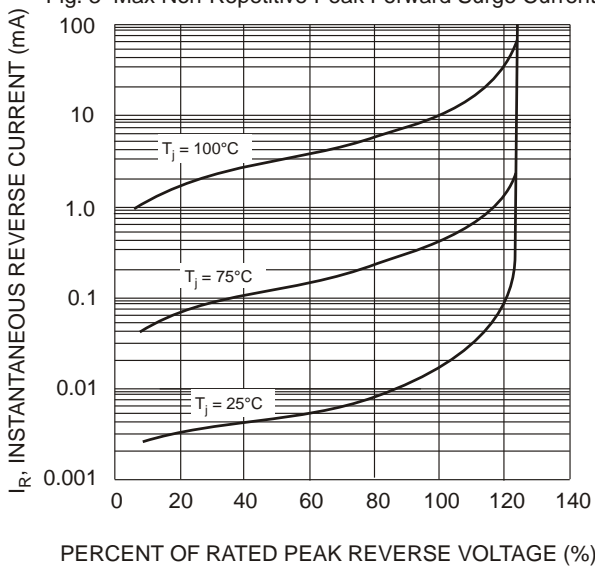


**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**



**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)**