

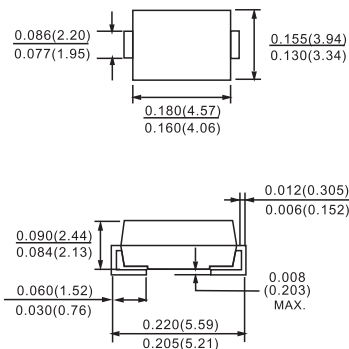
FEATURES

Plastic package has Underwriters Laboratory
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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectified Output Current @ $T_T = 100^{\circ}\text{C}$	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 @ $I_F = 2.0\text{A}$	V_{FM}	0.50			0.70		V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^{\circ}\text{C}$	I_{RM}	0.5 20					mA
Typical Total Capacitance (Note 2)	C_T	200					pF
Typical Thermal Resistance, Junction to Terminal	R_{JT}	20					$^{\circ}\text{C/W}$
Typical Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	25					$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150					$^{\circ}\text{C}$

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

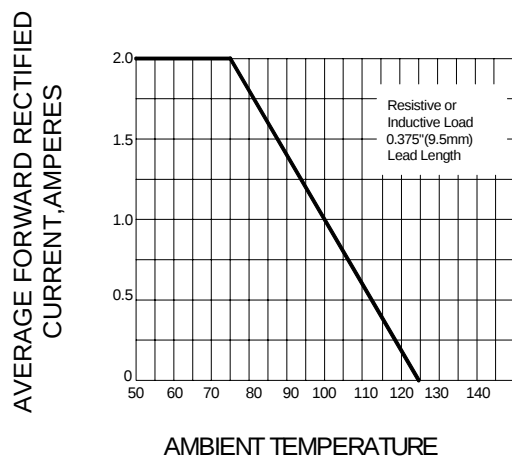


FIG.2 – TYPICAL FORWARD CHARACTERISTICS

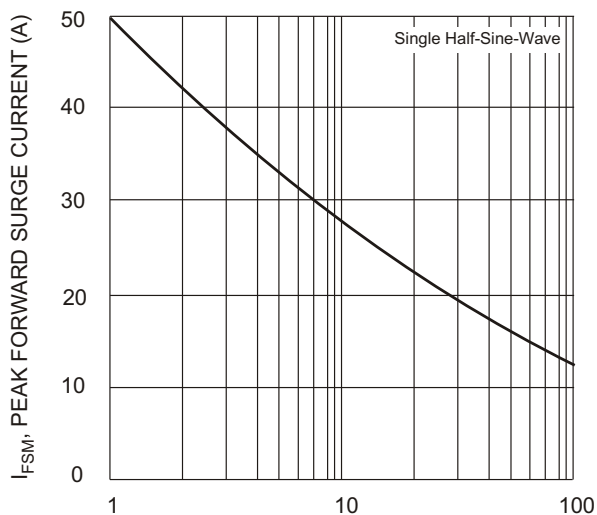
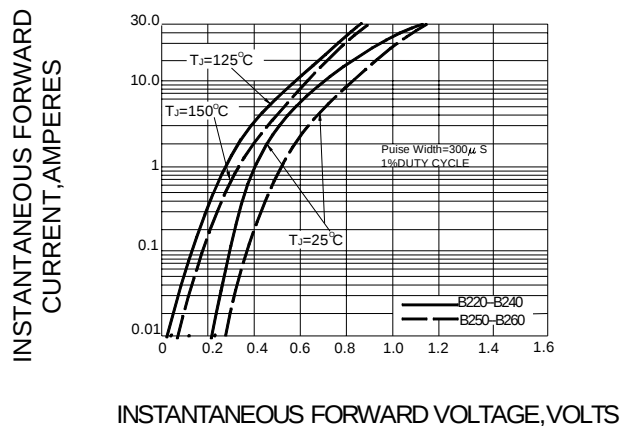


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

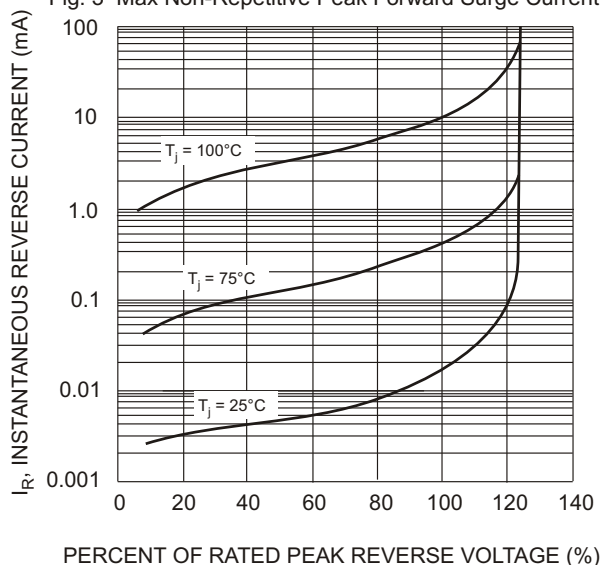


Fig. 5 Typical Reverse Characteristics

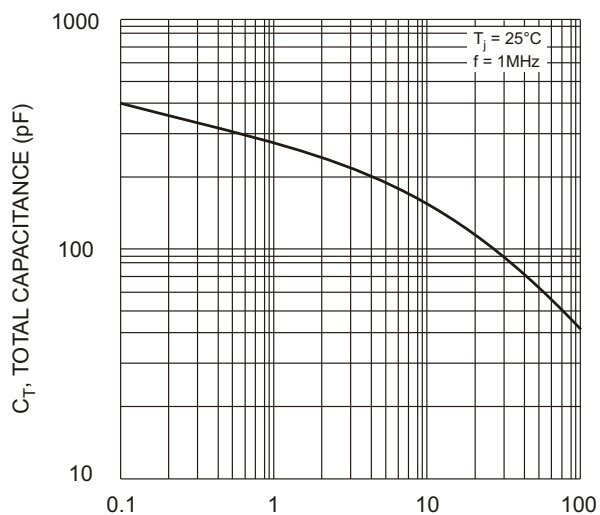


Fig. 4 Typical Total Capacitance

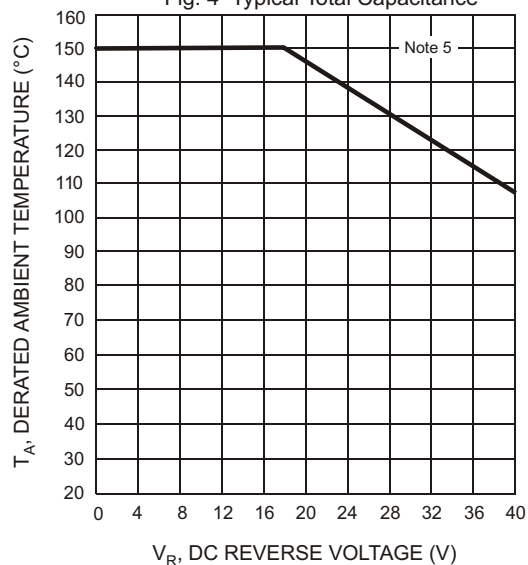


Fig. 6 Operating Temperature Derating (B240)