TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

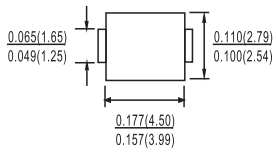
B320/A/B THRU B360/A/B

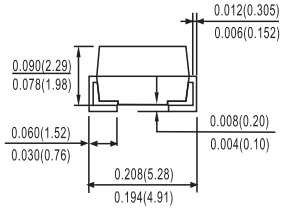
20V-60V 3.0A

FEATURES

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 100A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- Plastic Material - UL Flammability Classification 94V-0

DO-214AC(SMA)

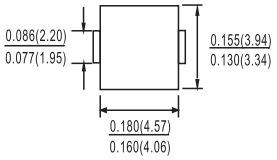


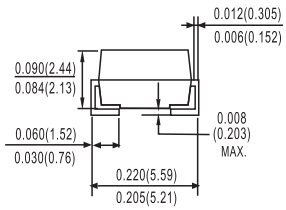


Dimensions in inches and (millimeters)

B320A-B360A

DO-214AA(SMB)





Dimensions in inches and (millimeters)

B320B-B360B

MECHANICAL DATA

- Case: Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Approx. Weight: SMA 0.064 grams
  SMB 0.093 grams
- Marking: Type Number

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

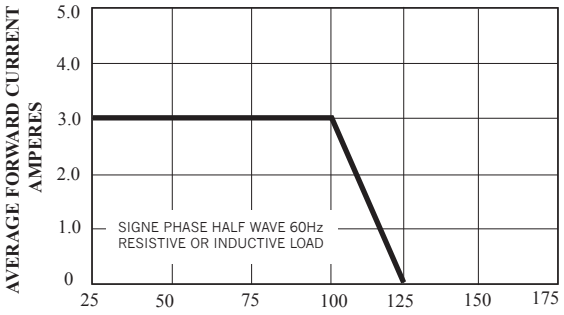
@ T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	B320/A/B	B330/A/B	B340/A/B	B350/A/B	B360/A/B	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°C	I_O	3.0					A
Non-Repetitive Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100					A
Forward Voltage @ I_F = 3.0A	V_{FM}	0.50			0.70		V
Peak Reverse Current @T_A = 25°C at Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20					mA
Typical Junction Capacitance (Note 2)	C_j	250					pF
Typical Thermal Resistance, Junction to Terminal (Note 1)	$R_{\theta JT}$	10					°C/W
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50					°C/W
Operating Temperature Range	T_{STG}	-55 to +150					°C
Storage Temperature Range	T_j	-55 to +125					°C

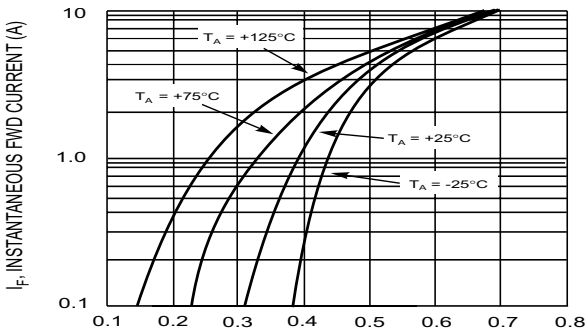
Notes: 1. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES B320/A/B THRU B360/A/B



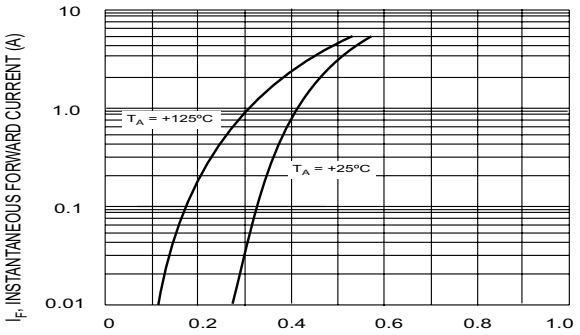
T , TERMINAL TEMPERATURE (C)°

Fig. 1 Forward Current Derating Curve



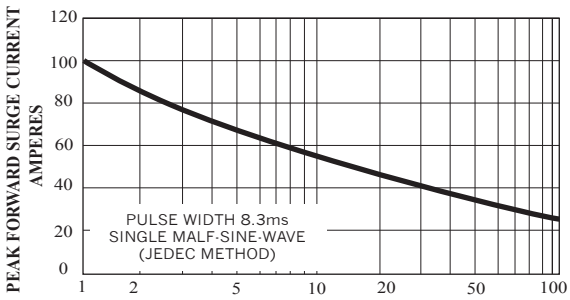
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 2 Typical Forward Characteristics - B320/A/B thru B340/A/B



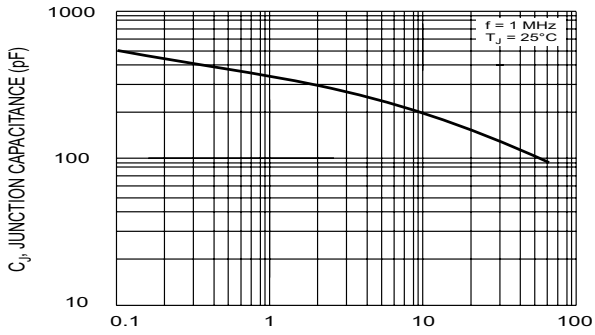
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 3 Typ. Forward Characteristics - B350/A/B thru B360/A/B



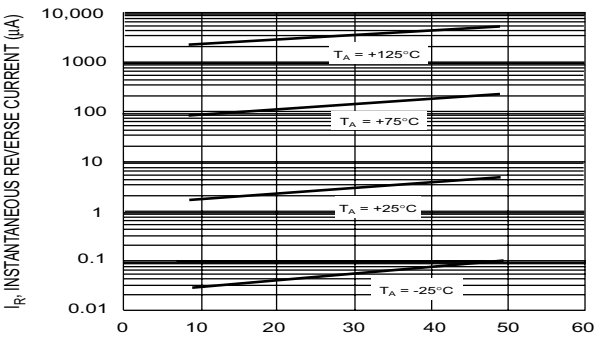
NUMBER OF CYCLES AT 60 Hz

Fig. 4 Max Non-Repetitive Peak Fwd Surge Current



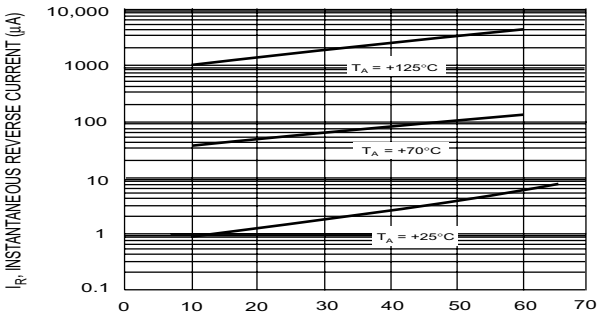
V_R, REVERSE VOLTAGE (V)

Fig. 5 Typical Junction Capacitance



V_R, INSTANTANEOUS REVERSE VOLTAGE (V)

Fig. 6 Typical Reverse Characteristics, B320/A/B thru B340/A/B



V_R, INSTANTANEOUS REVERSE VOLTAGE (V)

Fig. 7 Typical Reverse Characteristics, B350/A/B thru B360/A/B