

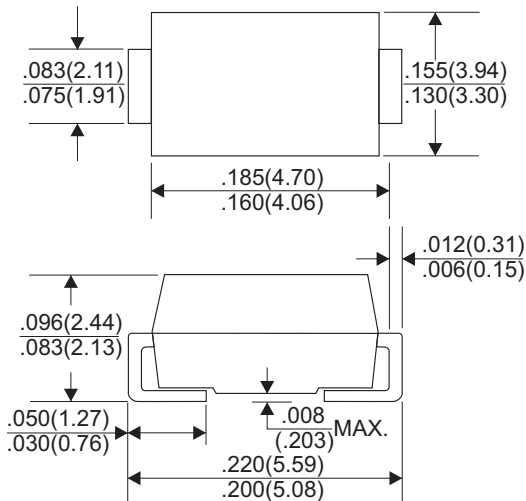


SM120B THER SM1200B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 Volts Forward Current - 1.0 Ampere

DO-214AA(SMB)



Dimensions in inches and (millimeters)

FEATURES

- * The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- * For surface mounted applications
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * Built-in strain relief, ideal for automated placement
- * High forward surge current capability
- * High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

- * Case: Molded plastic
- * Terminals: leads solderable per MIL-STD-750, Method 2026
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SM 120B	SM 130B	SM 140B	SM 150B	SM 160B	SM 180B	SM 1100B	SM 1150B	SM 1200B	UNITS	
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	150	200	V	
Maximum RMS Voltage	14	21	28	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	150	200	V	
Maximum Average Forward Rectified Current											
See Fig. 1										1.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)										30	A
Maximum Instantaneous Forward Voltage at 1.0A	0.55		0.70		0.85		0.92			V	
Maximum DC Reverse Current Ta=25°C										0.05	mA
at Rated DC Blocking Voltage Ta=100°C										10	mA
Typical Junction Capacitance (Note 1)	110				90					pF	
Typical Thermal Resistance RθJA (Note 2)										88	°C/W
Operating Temperature Range Tj	-65 — +125				-65 — +150						°C
Storage Temperature Range Tstg										-65 — +150	°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SM120B THRU SM1200B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

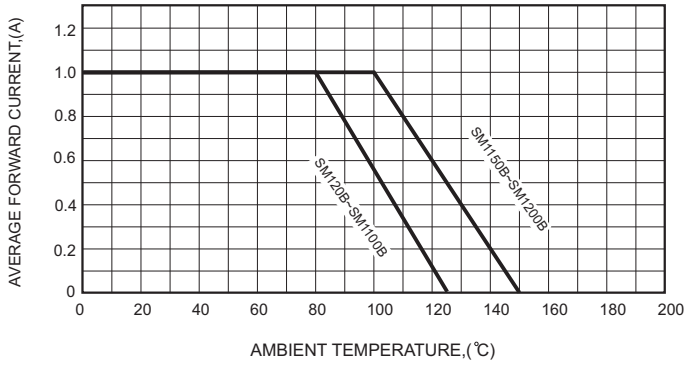


FIG.2-TYPICAL FORWARD CHARACTERISTICS

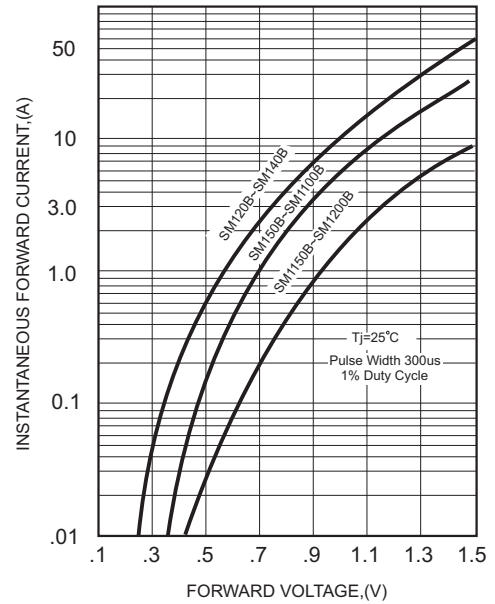


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

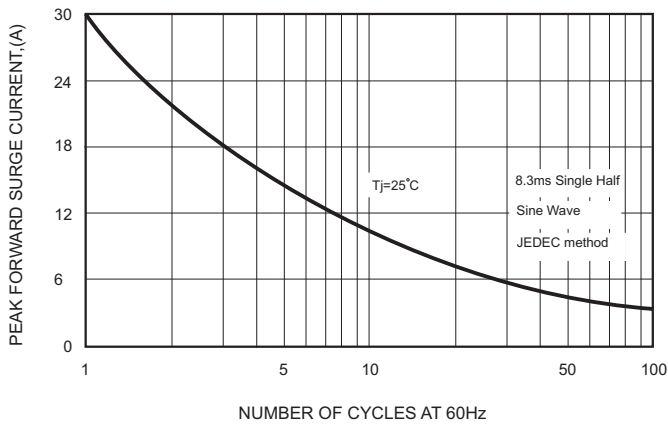


FIG.4-TYPICAL JUNCTION CAPACITANCE

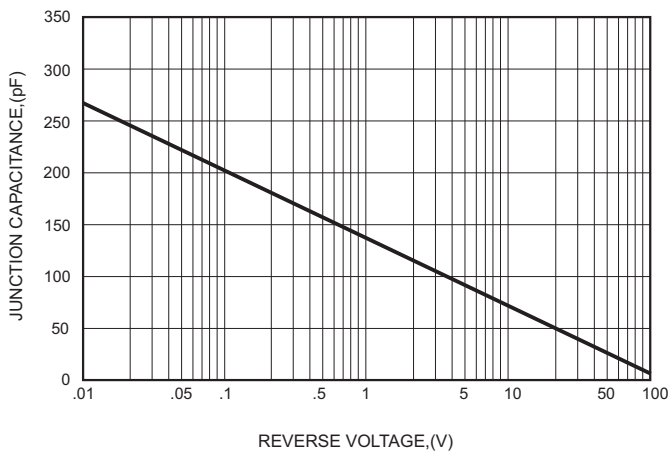


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

