

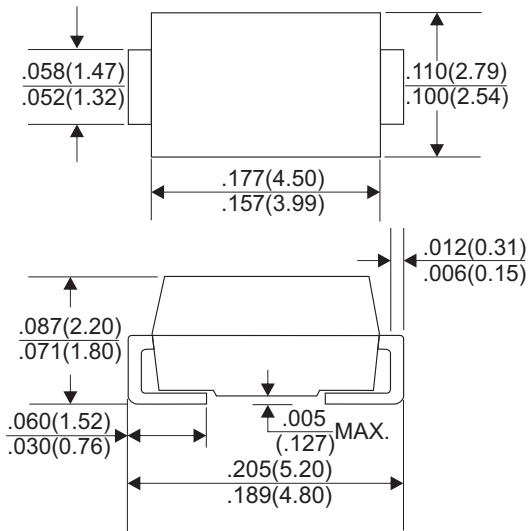


SM120A THER SM1200A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

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

DO-214AC(SMA)



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 120A	SM 130A	SM 140A	SM 150A	SM 160A	SM 180A	SM 1100A	SM 1150A	SM 1200A	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	1.0									A
See Fig. 1										
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 (Note1)	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 (SM120A THRU SM1200A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

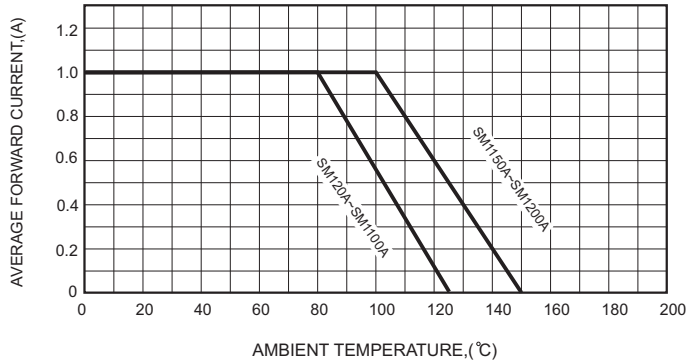


FIG.2-TYPICAL FORWARD CHARACTERISTICS

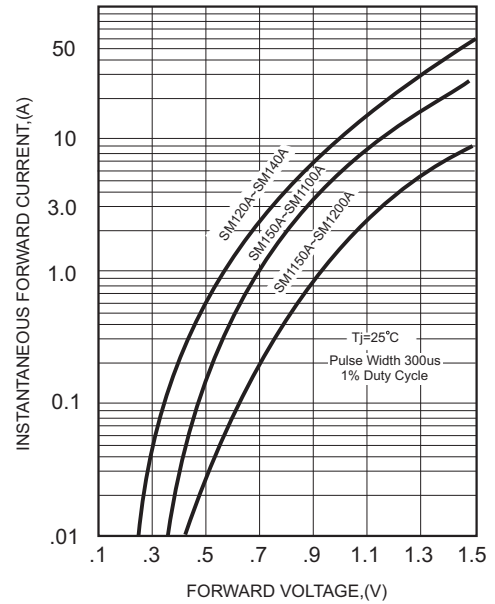


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

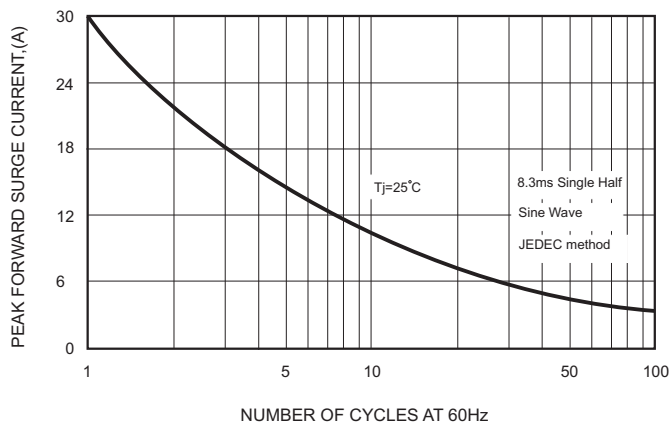


FIG.4-TYPICAL JUNCTION CAPACITANCE

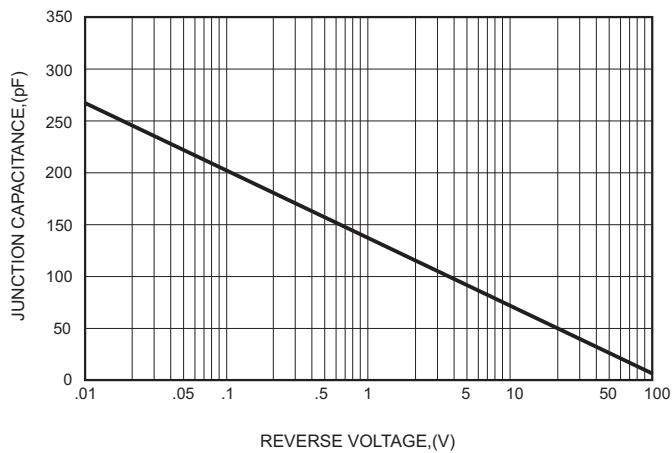


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

