

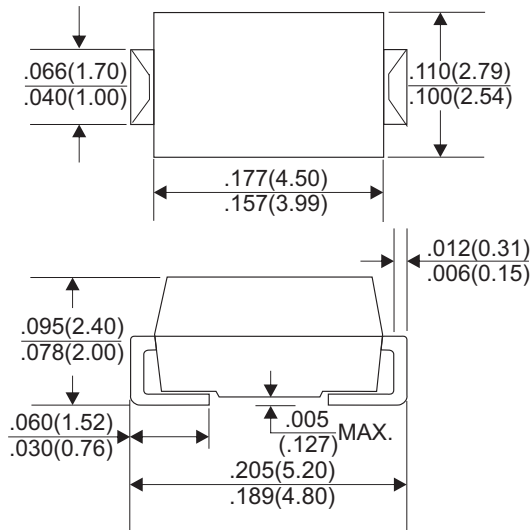


SM4001AL THRU SM4007AL

SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

SMAL



Dimensions in inches and (millimeters)

FEATURES

- * Glass passivate device
- * Ideal for surface mounted applications
- * Low reverse leakage
- * Metallurgically bonded construction
- * High temperature soldering guaranteed:
250°C/10 seconds 0.375"(9.5mm)lead length,
5 lbs.(2.3kg) tension

MECHANICAL DATA

- * Case: JEDEC SMAL molded plastic
- * Terminals: Plated axial 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	SM4001AL	SM4002AL	SM4003AL	SM4004AL	SM4005AL	SM4006AL	SM4007AL	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=75°C	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	1.1							V
Maximum DC Reverse Current Ta=25°C	5.0							µA
at Rated DC Blocking Voltage Ta=100°C	50							µA
Typical Junction Capacitance (Note 1)	15							pF
Typical Thermal Resistance RθJA (Note 2)	50							°C/W
Operating and Storage Temperature Range Tj, Tstg	-65 — +175							°C
Marking Code	4001	4002	4003	4004	4005	4006	4007	

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM4001AL THRU SM4007AL)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

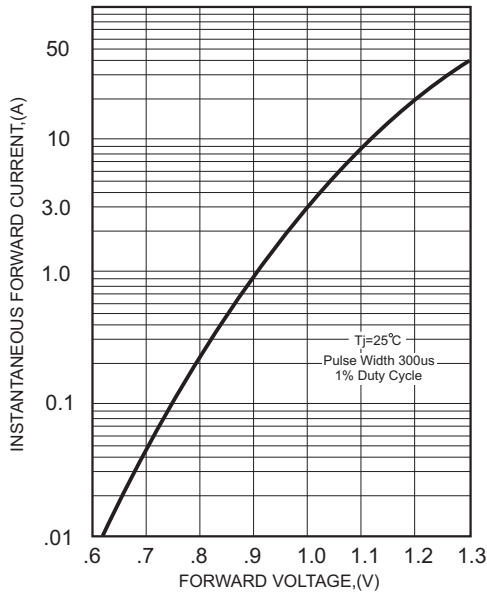


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

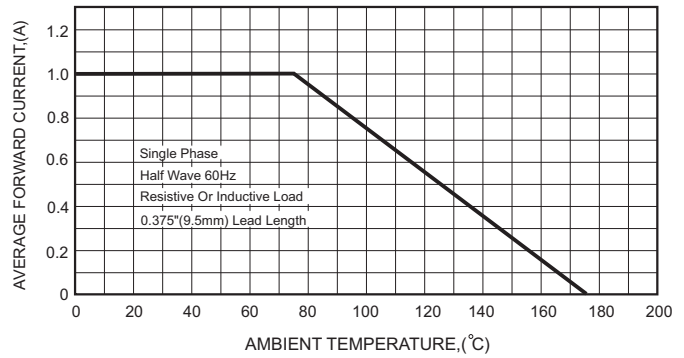


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

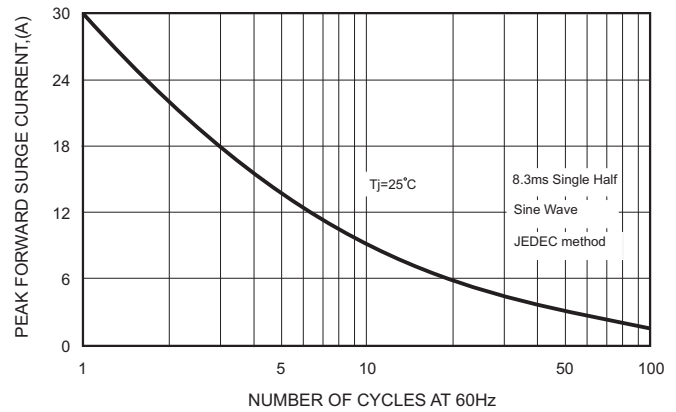


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

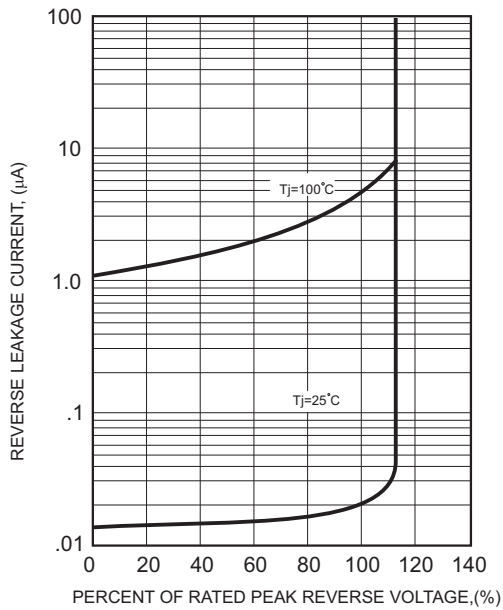


FIG.5-TYPICAL JUNCTION CAPACITANCE

