SM4001 THRU SM4007



1.0 AMP SURFACE MOUNT SILICON RECTIFIERS



FEATURES

- * Low forward voltage drop
- * Low leakage current
- * High reliability

MECHANICAL DATA

* Case: Molded plastic

* Epoxy: UL 94V-0 rate flame retardant

* Metallurgically bonded construction

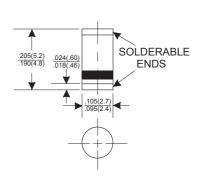
* Polarity: Color band denotes cathode end

* Mounting position: Any * Weight: 0.015 grams

VOLTAGE RANGE 50 to 1000 Volts CURRENT

1.0 Ampere

SM-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM4001	SM4002	SM4003	SM4004	SM4005	SM4006	SM4007	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								
See Fig. 2		1.0						
Peak Forward Surge Current, 8.3 ms single half sine-wave								
superimposed on rated load (JEDEC method)		30						Α
Maximum Instantaneous Forward Voltage at 1.0A		1.1					V	
Maximum DC Reverse Current Ta=25 ℃		5.0						
at Rated DC Blocking Voltage Ta=100℃		50						
Typical Junction Capacitance (Note 1)		15						pF
Typical Thermal Resistance RθJA (Note 2)		50						°C/W
Operating and Storage Temperature Range T _J , TsTG		-65—+175						

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 (SM4001 THRU SM4007)

FIG.1-TYPICAL FORWARD

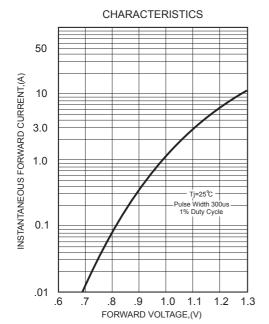


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

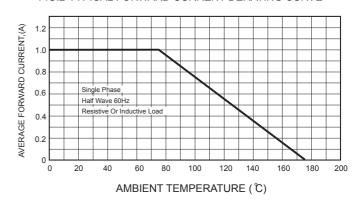


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

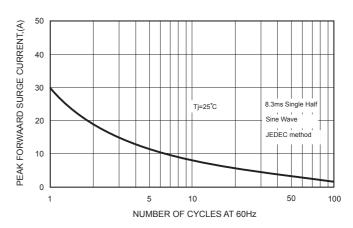


FIG.3 - TYPICAL REVERSE

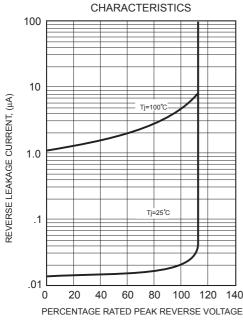


FIG.5-TYPICAL JUNCTION CAPACITANCE

