



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

GLASS PASSIVATED SILICON RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 1.0 Ampere

SM4001PT

THRU

SM4007PT

Lead free devices

FEATURES

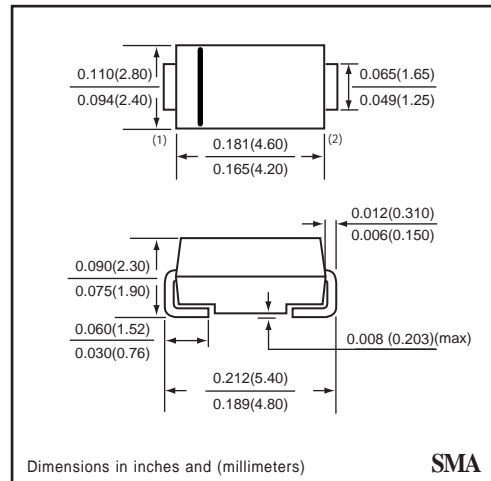
- * Low leakage current
- * Ideal for surface mounted applications
- * Metallurgically bonded construction
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Glass passivated junction
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SMA molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Indicated by cathode band
Weight: 0.002 ounces, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS		SYMBOL	SM4001PT	SM4002PT	SM4003PT	SM4004PT	SM4005PT	SM4006PT	SM4007PT	UNITS	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current TL = 110°C		I _O	1.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}					30				Amps
Typical Junction Capacitance (Note 1)		C _J					15				pF
Maximum Thermal Resistance	(Note 2)	R _{θJL}					20				°C / W
	(Note 3)	R _{θJA}					50				°C / W
Operating and Storage Temperature Range		T _J , T _{STG}					-65 to +175				°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	SM4001PT	SM4002PT	SM4003PT	SM4004PT	SM4005PT	SM4006PT	SM4007PT	UNITS	
Maximum Instantaneous Forward Voltage at 1.0 A DC		V _F					1.0				Volts
Maximum Full Load Reverse Current, Full cycle Average at TA = 75°C		I _R					30				uAmps
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C						5.0				uAmps
	@ TA = 125°C						50				uAmps

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
 2. Thermal Resistance Junction to terminal, 6.0 mm² copper pads to each terminal
 3. Thermal Resistance Junction to ambient, 6.0 mm² copper pads to each terminal

RATING CHARACTERISTIC CURVES (SM4001PT THRU SM4007PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

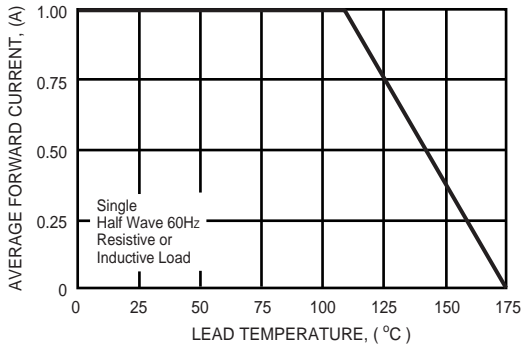


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

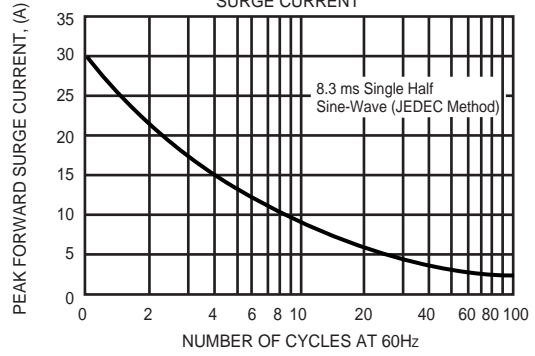


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

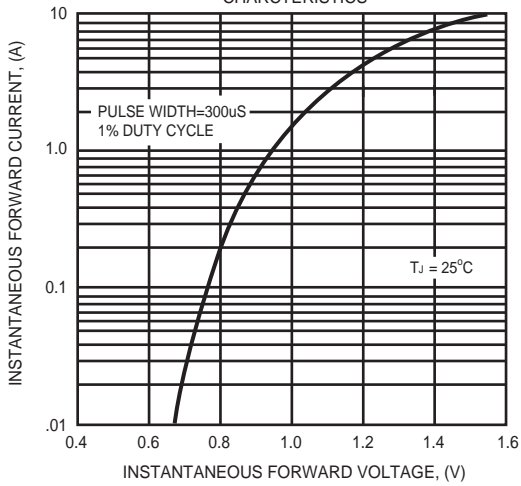


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

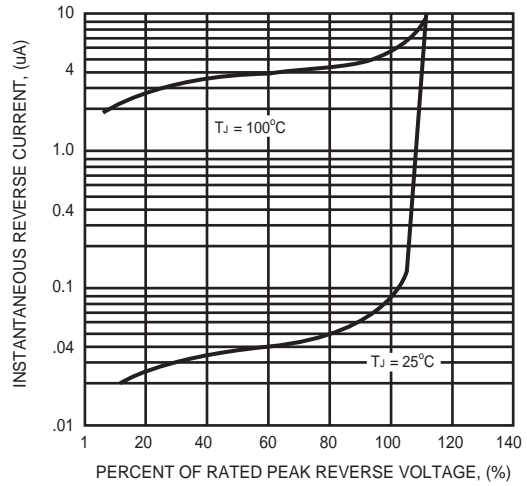


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

