CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 60 Volts CURRENT 1.0 Ampere

SSM12PT

THRU

SSM16PT

Lead free devices

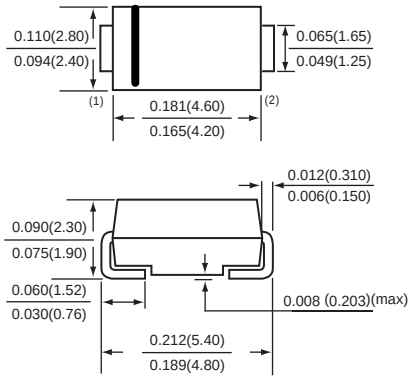
FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* For surface mounted applications
* Low profile package
* Built-in strain relief
* Metal silicon junction, majority carrier conduction
* Low power loss, high efficiency
* High current capability, low forward voltage drop
* High surge capability
* For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
* High temperature soldering guaranteed : 260°C/10 seconds at terminals
* Lead free devices

MECHANICAL DATA

Case: JEDEC SMA molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.002 ounce 0.064 gram

SMA



Dimensions in inches and (millimeters)

SMA

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 RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	SSM12PT	SSM13PT	SSM14PT	SSM15PT	SSM16PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current	I_O	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40					Amps
Typical Junction Capacitance (Note 2)	C_J	110					pF
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	25					°C / W
Operating Temperature Range	T_J	-65 to +125			-65 to +150		°C
Storage Temperature Range	T_{STG}	-65 to +150					°C

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

CHARACTERISTICS		SYMBOL	SSM12PT	SSM13PT	SSM14PT	SSM15PT	SSM16PT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC		V_F	0.50			0.70		Volts
Maximum Average Reverse Current	@ T_A = 25°C	I_R	0.5					mAmps
at Rated DC Blocking Voltage	@ T_A = 100°C		10					mAmps

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.2 X 0.2" (5 X 5mm) copper pad area.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

RATING CHARACTERISTIC CURVES (SSM12PT THRU SSM16PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

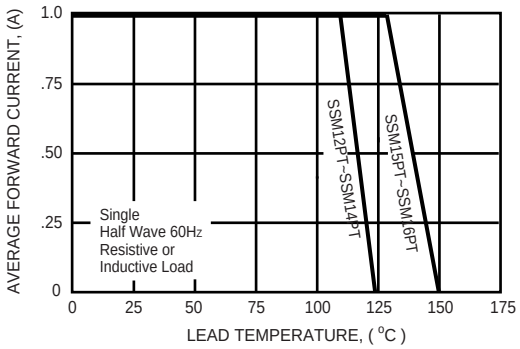


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

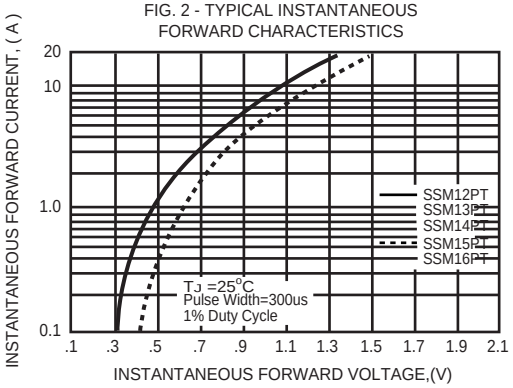


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

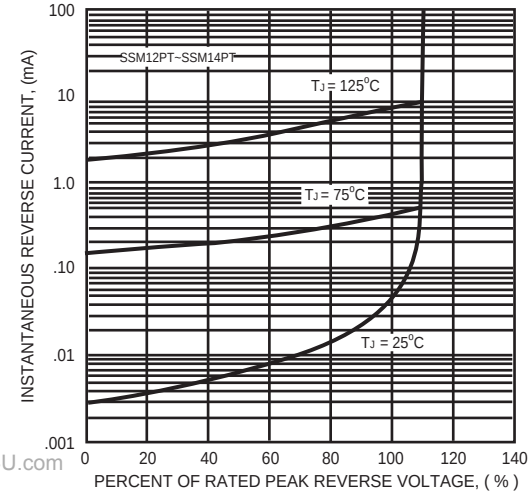


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

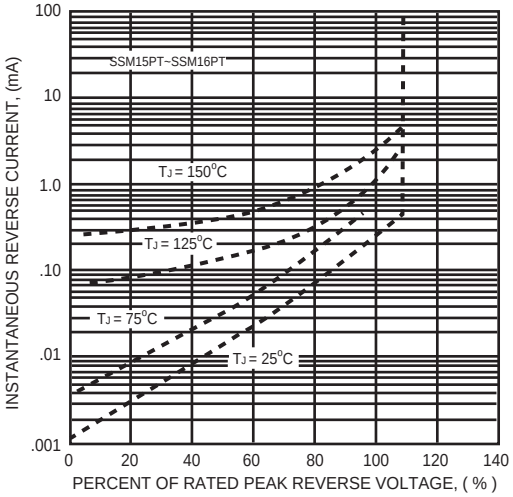


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

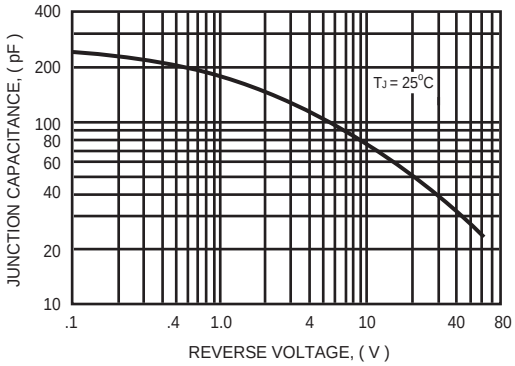


FIG. 5 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT