



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 Volts CURRENT 1.0 Ampere

**SSM0140SPT**

Lead free devices

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Low power loss, high efficiency
- \* 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

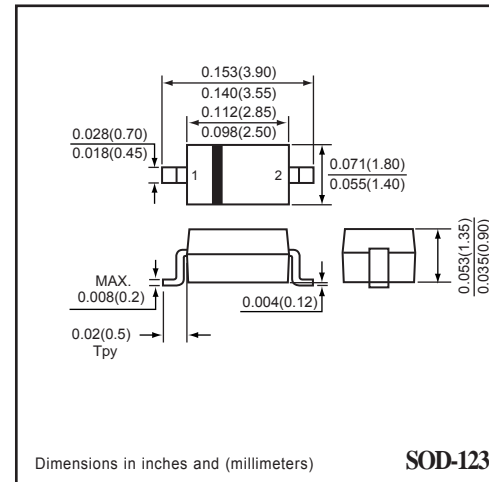
**Case:** JEDEC SOD-123 molded plastic  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Weight:** 0.001 ounce 0.032 gram

#### 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%.



SOD-123



SOD-123

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

RATINGS	SYMBOL	SSM0140SPT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	40	Volts
Maximum RMS Voltage	VRRMS	28	Volts
Maximum DC Blocking Voltage	VDC	40	Volts
Maximum Average Forward Rectified Current at TL = 90°C	Io	1.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) TL = 70°C	IFSM	15	Amps
Typical Junction Capacitance (Note 2)	CJ	100	pF
Typical Thermal Resistance (Note 1)	R θ JL	80	°C / W
Storage and Operating Temperature Range	TJ, TSTG	-65 to +125	°C

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

CHARACTERISTICS	SYMBOL	SSM0140SPT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	VF	0.46	Volts
Maximum Average Reverse Current at VR= 30V	@ TA = 25°C	0.1	mAmps
	@ TA = 100°C	9.0	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

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# RATING CHARACTERISTIC CURVES ( SSM0140SPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

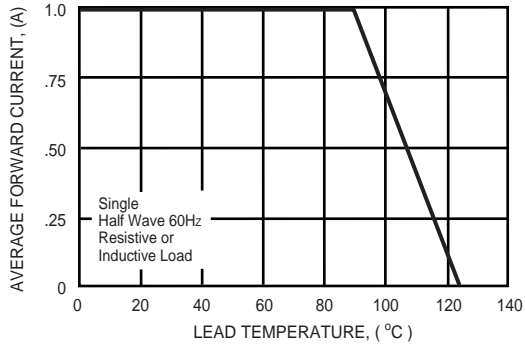


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

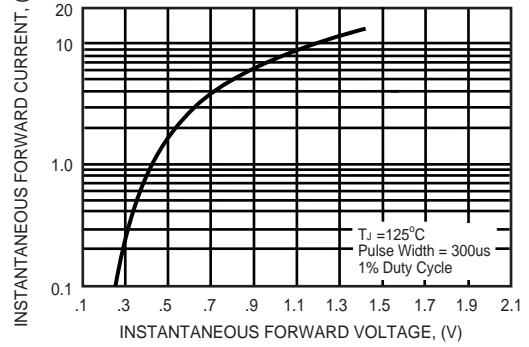


FIG. 3 - REVERSE CHARACTERISTICS

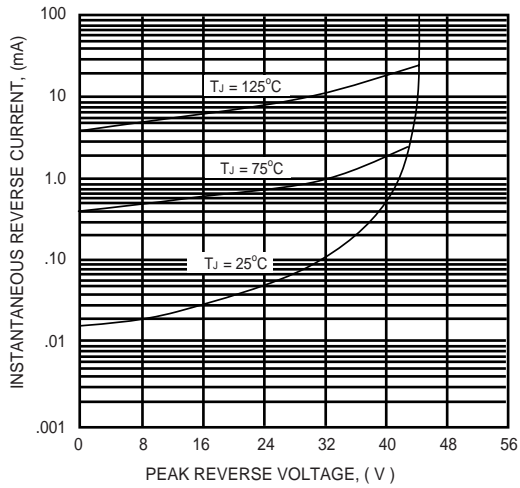


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

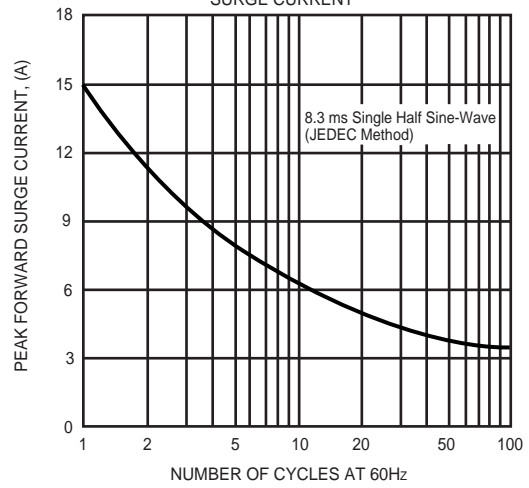


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

