



# CHENMKO ENTERPRISE CO.,LTD

Lead free devices

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 100 Volts CURRENT 0.5 Ampere

SSM05100SPT

#### FEATURES

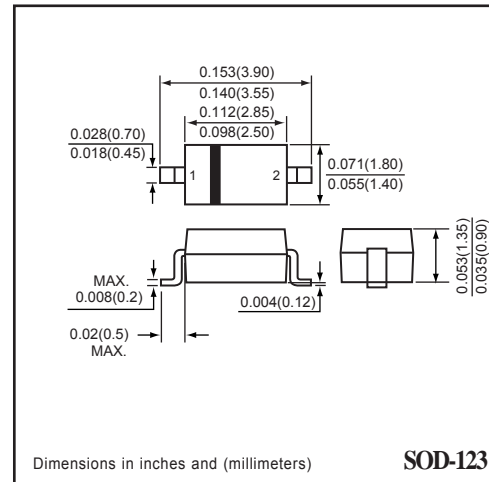
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Built-in strain relief
- \* Metal silicon junction, majority carrier conduction
- \* Low power loss, high efficiency
- \* High current capability, low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

#### MECHANICAL DATA

**Case:** JEDEC SOD-123 molded plastic  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Marking:** K9

#### 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	SSM05100SPT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	100	Volts
Maximum RMS Voltage	VRMS	70	Volts
Maximum DC Blocking Voltage	VDC	100	Volts
Maximum Average Forward Rectified Current at TL = 118°C	Io	0.5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	8.0	Amps
Typical Thermal Resistance (Note 1)	R θJL	70	°C / W
Operating Temperature Range	TJ	-40 to +150	°C
Storage Temperature Range	TSTG	-40 to +150	°C

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

CHARACTERISTICS	SYMBOL	SSM05100SPT	UNITS
Maximum Instantaneous Forward Voltage at IF=0.5A	VF @ TA = 25°C	0.57	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	IR @ TA = 25°C	50	uAmps

NOTES : 1. Thermal Resistance ( Junction to Lead ) : PC Board Mounted on 0.06 X 0.06" ( 0.15X 0.15mm ) copper pad area.

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## RATING CHARACTERISTIC CURVES ( SSM05100SPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

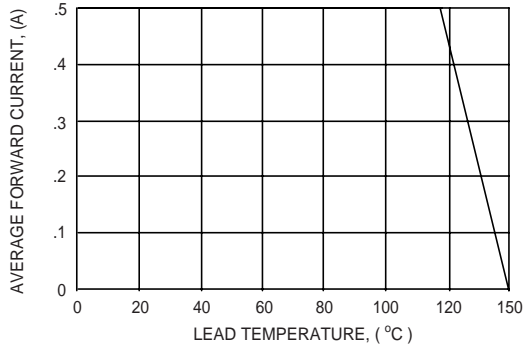


FIG. 2 - MAX. INSTANTANEOUS FORWARD CHARACTERISTICS

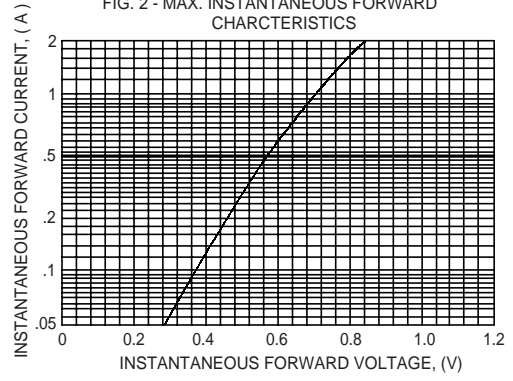


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

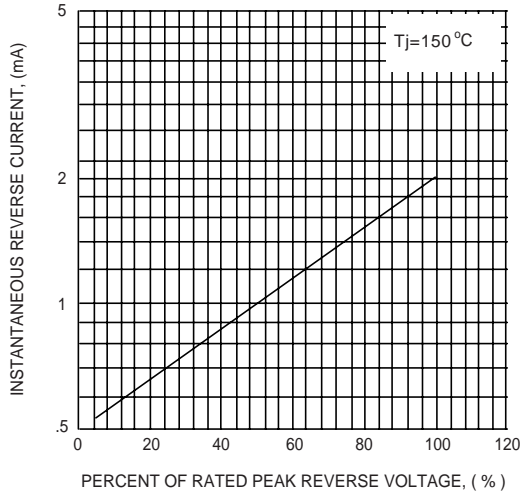


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

