



# CHENMKO ENTERPRISE CO.,LTD

Lead free devices

## SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 200 Volts CURRENT 0.5 Ampere

SSM05200SPT

### 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

### MECHANICAL DATA

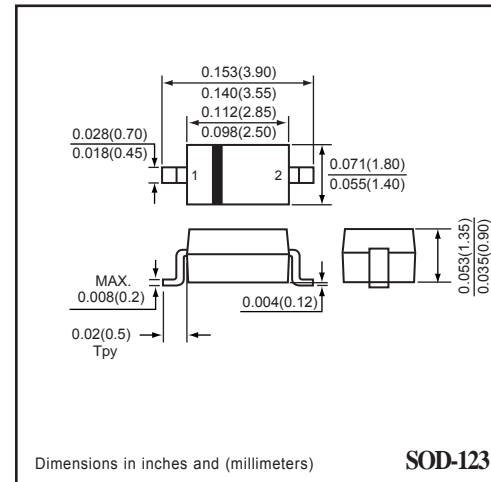
**Case:** JEDEC SOD-123 molded plastic  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Weight:** 0.001 ounce 0.032 gram  
**Marking:** K20

### 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



Dimensions in inches and (millimeters)

SOD-123

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

RATINGS	SYMBOL	SSM05200SPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	200	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	140	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> = 90°C	I <sub>O</sub>	0.5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) T <sub>L</sub> = 70°C	I <sub>FSM</sub>	15	Amps
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	140	pF
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub>	80	°C / W
Storage and Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	SSM05200SPT	UNITS
Maximum Instantaneous Forward Voltage at 0.5 A DC	V <sub>F</sub>	0.95	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	10	uAmps
	@ TA = 100°C	5	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

2006-12

## RATING CHARACTERISTIC CURVES ( SSM05200SPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

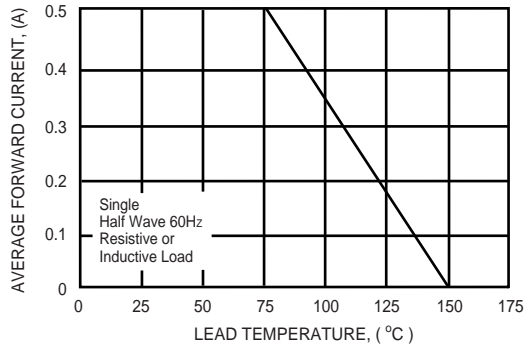


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

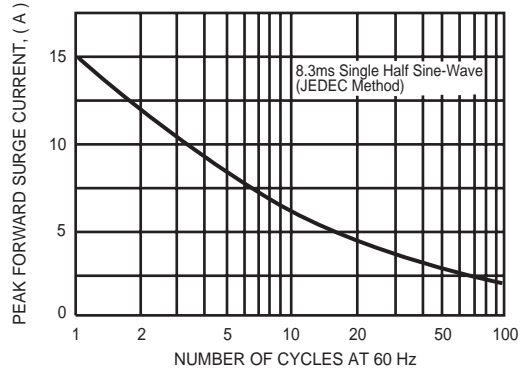


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

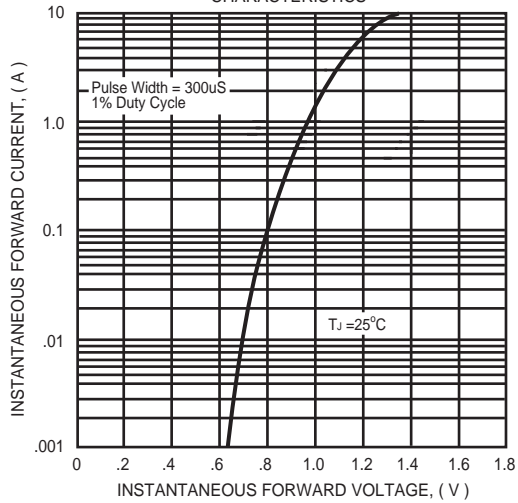


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

