



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 100 Volts CURRENT 0.5 Ampere

SSM05100SGP

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

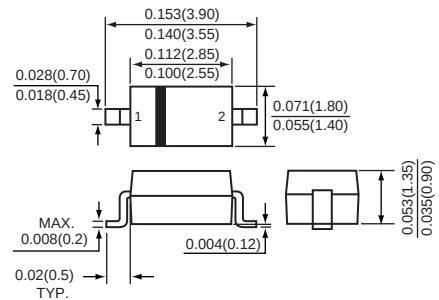
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Marking: K9



SOD-123



Dimensions in inches and (millimeters)

SOD-123

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	SSM05100SGP	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
Maximum RMS Voltage	V_{RMS}	70	Volts
Maximum DC Blocking Voltage	V_{DC}	100	Volts
Maximum Average Forward Rectified Current at $T_L = 118^\circ\text{C}$	I_O	0.5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	8.0	Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	70	$^\circ\text{C} / \text{W}$
Operating Temperature Range	T_J	-40 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	SSM05100SGP	UNITS
Maximum Instantaneous Forward Voltage at $I_F=0.5\text{A}$	V_F	0.57	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	50	μAmps

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

2012-05

RATING CHARACTERISTIC CURVES (SSM05100SGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

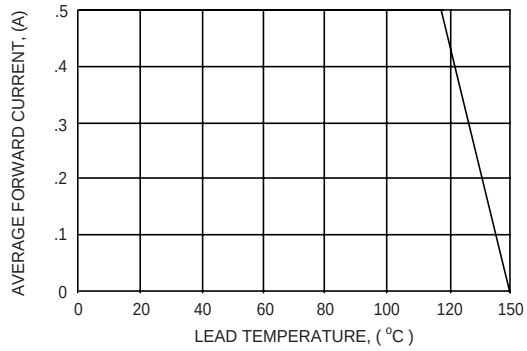


FIG. 2 - MAX. INSTANTANEOUS FORWARD CHARACTERISTICS

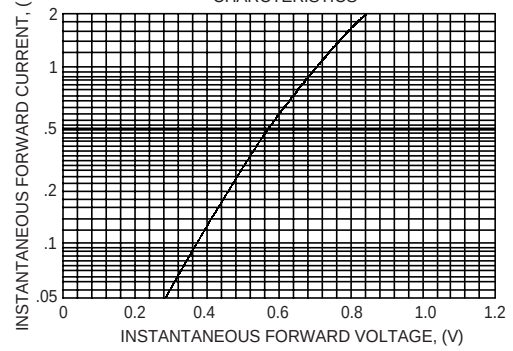


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

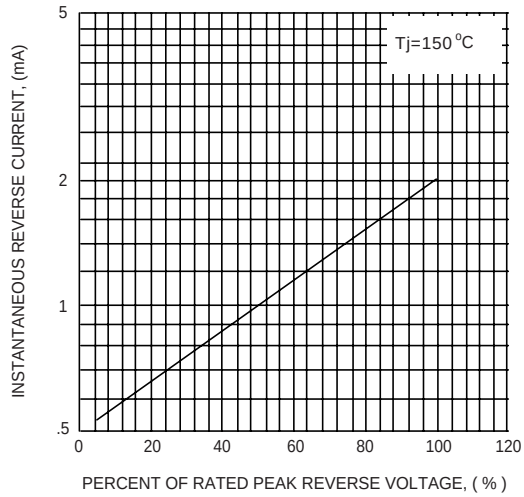


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

