



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 Volts CURRENT 1.5 Ampere

SMD24SGP

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

MECHANICAL DATA

Case: JEDEC SOD-123 molded plastic

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

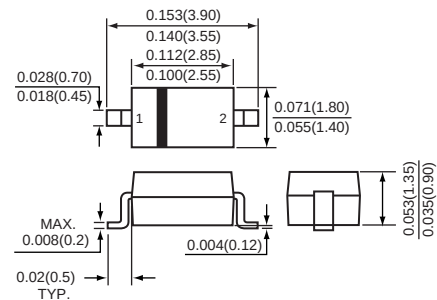
Polarity: Color band denotes cathode end

Weight: 0.001 ounce 0.032 gram

Marking: S8



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	SMD24SGP	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	Volts
Maximum RMS Voltage	V_{RMS}	28	Volts
Maximum DC Blocking Voltage	V_{DC}	40	Volts
Maximum Average Forward Rectified Current at $T_L = 90^\circ\text{C}$	I_o	1.5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) $T_L = 70^\circ\text{C}$	I_{FSM}	25	Amps
Typical Junction Capacitance (Note 2)	C_J	110	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	80	$^\circ\text{C} / \text{W}$
Storage and Operating Temperature Range	T_J, T_{STG}	-65 to +125	$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	SMD24SGP	UNITS
Maximum Instantaneous Forward Voltage at 1.1 A DC	V_F	0.65	Volts
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	0.8	mAmps
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		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.

2012-05

RATING CHARACTERISTIC CURVES (SMD24SGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

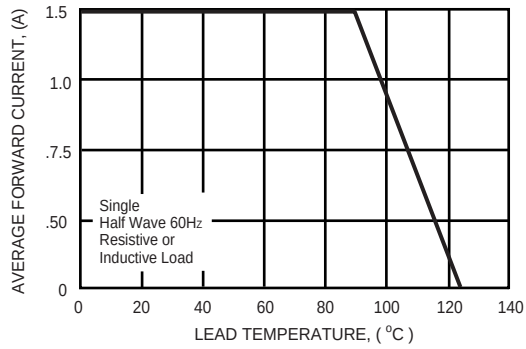


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

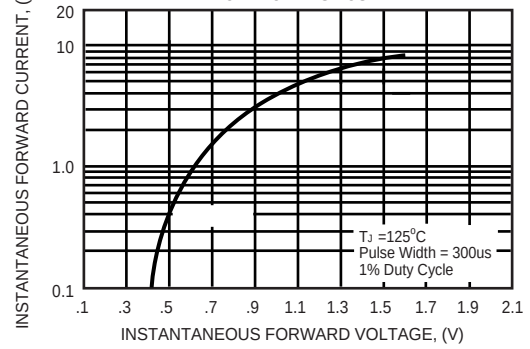


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

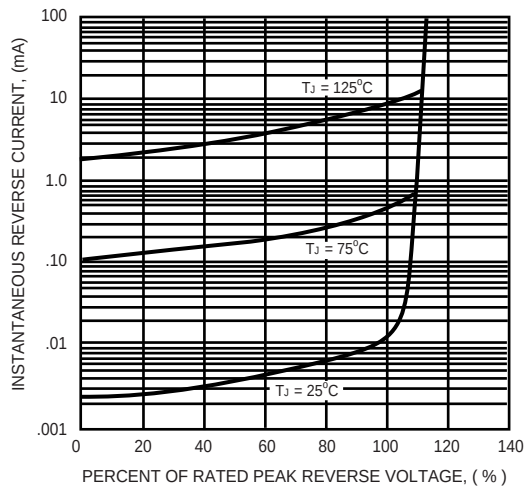


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

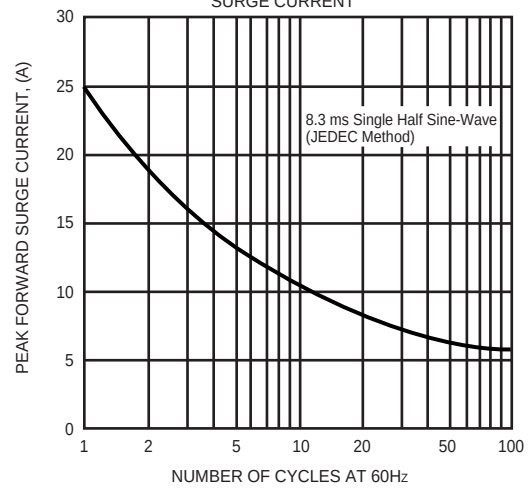


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

