



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT GLASS PASSIVATED SUPER FAST SILICON RECTIFIER

VOLTAGE RANGE 50 - 200 Volts CURRENT 0.8 Ampere

PSM11GP

THRU

PSM13GP

FEATURES

- * For surface mounted applications
- * Low profile package
- * Built-in strain relief
- * Superfast recovery times for high efficiency
- * Metallurgically bonded construction
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Glass passivated junction
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

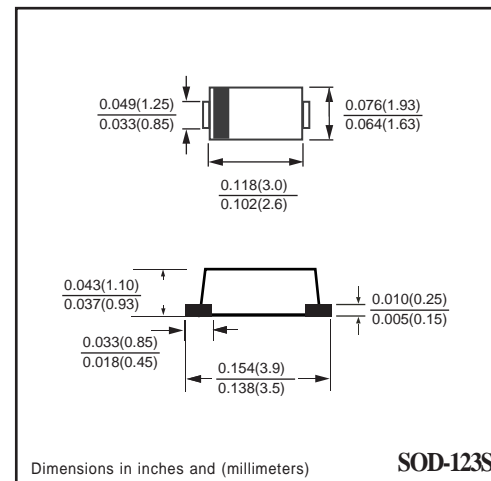
Case: JEDEC SOD-123S molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Indicated by cathode band
Weight: 0.001 ounces, 0.032 gram

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-123S



SOD-123S

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

RATINGS	SYMBOL	PSM11GP	PSM12GP	PSM13GP	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	Volts
Maximum Average Forward Rectified Current T _L = 120°C	I _O	0.8			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			Amps
Typical Junction Capacitance (Note 1)	C _J	15			pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150			°C

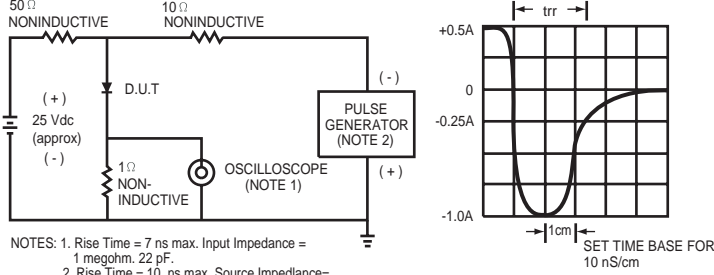
ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	PSM11GP	PSM12GP	PSM13GP	UNITS
Maximum Instantaneous Forward Voltage at 0.8 A DC	V _F	0.95			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	I _R	5.0		uAmps
	@ TA = 100°C		50		uAmps
Maximum Reverse Recovery Time (Note 2)	t _{rr}	35			nSec

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
 2. Test Conditions : I_F = 0.5 A, I_R = -1.0 A, I_{RR} = -0.25 A

RATING CHARACTERISTIC CURVES (PSM11GP THRU PSM13GP)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm. 22 pF.
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

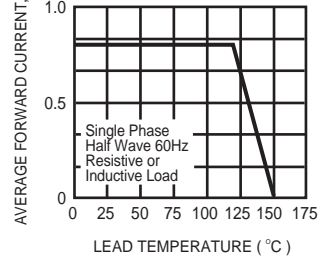


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

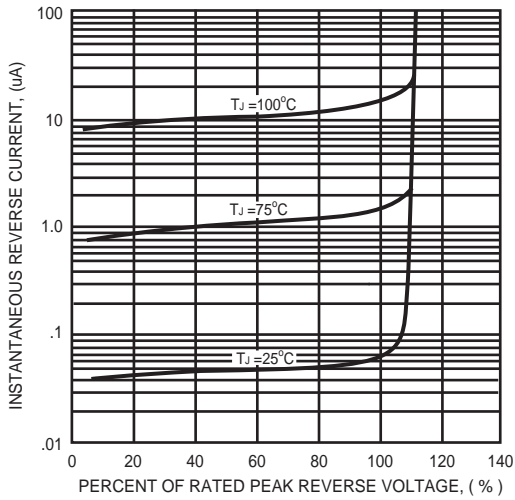


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

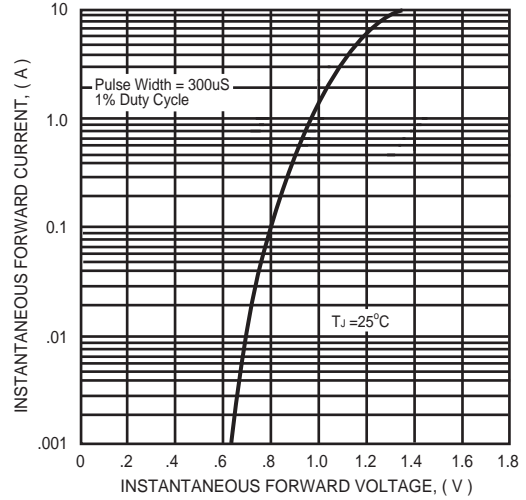


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

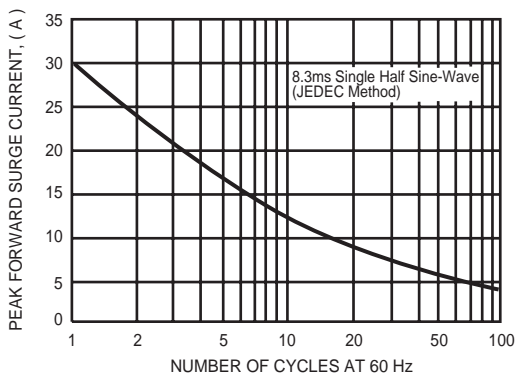


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

