



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

**SURFACE MOUNT GLASS PASSIVATED
FAST RECOVERY SILICON RECTIFIER**

VOLTAGE RANGE 400 - 1000 Volts CURRENT 1.0 Ampere

FSM157PT

THRU

FSM159PT

FEATURES

- * Low leakage current
- * Ideal for surface mounted applications
- * Metallurgically bonded construction
- * Fast recovery times for high efficiency
- * 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 SMA molded plastic

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

Polarity: Color band denotes cathode end

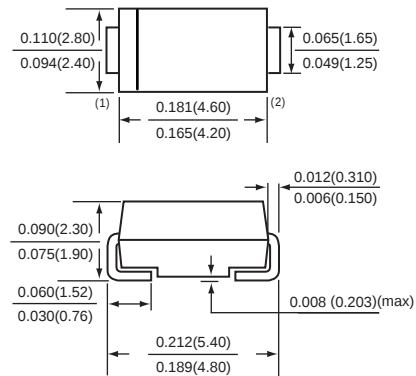
Weight: 0.002 ounce 0.064 gram

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%.



SMA



Dimensions in inches and (millimeters)

SMA

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

RATINGS	SYMBOL	FSM157PT	FSM158PT	FSM159PT	UNITS
Peak Recurrent and Non Recurrent Reverse Voltage	V_{RRM}	400	600	1000	Volts
Forward current, R load at Temperatur $T_L = 100^{\circ}\text{C}$	$I_F (AV)$	1.0			Amps
Recurrent Peak Forward Current	I_{FRM}	9.0			Amps
10 ms. Peak Forward Surge Current	I_{FSM}	35			Amps
Maximum Operating Temperature	T_J	+150			$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150			$^{\circ}\text{C}$

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

CHARACTERISTICS	SYMBOL	FSM157PT	FSM158PT	FSM159PT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	V_F	1.3			Volts
Reverse current at V_{RRM} at 25°C	I_R	5.0			μA
Capacitance at 1 MHz and V_{RRM}	C_D	2.2	2.0	1.8	pF
Maximum Thermal Resistance	$R_{\theta JA}$	60			$^{\circ}\text{C} / \text{W}$
Maximum Reverse Recovery Time From $I_F=0.5\text{A}$ to $I_R= -1\text{A}$ with $I_{RR}= -0.25\text{A}$	t_{rr}	150		250	nS

RATING CHARACTERISTIC CURVES (FSM157PT THRU FSM159PT)

FIG. 1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

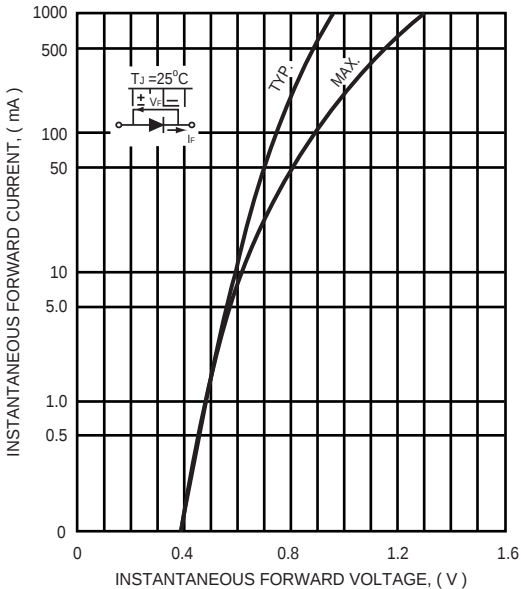


FIG. 2 - TYPICAL THERMAL RESISTANCE CHARACTERISTICS

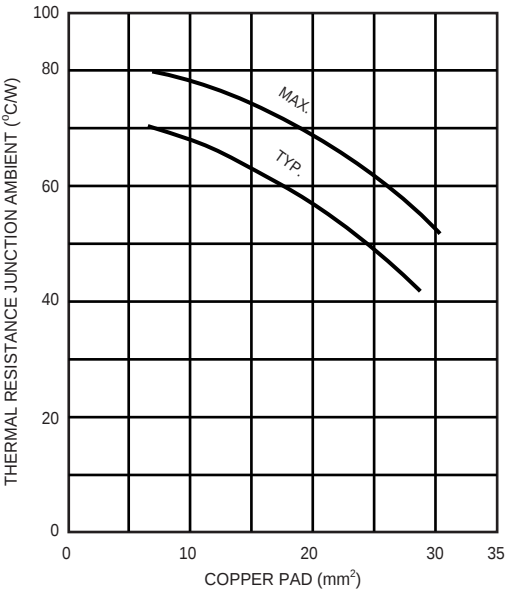


FIG. 3 - TYPICAL FORWARD CURRENT DERATING CURVE

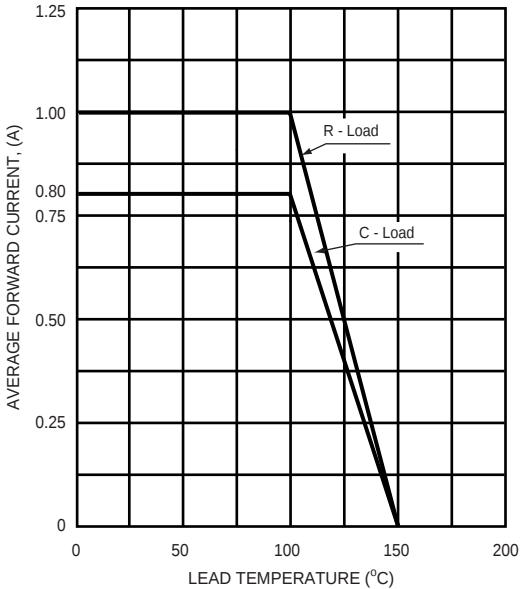


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

