



**CHENMKO ENTERPRISE CO.,LTD**

**SURFACE MOUNT**

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 - 40 Volts CURRENT 5.0 Amperes**

**SCM52LPT**

**THRU**

**SCM54LPT**

*Lead free devices*

#### 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 SMC molded plastic

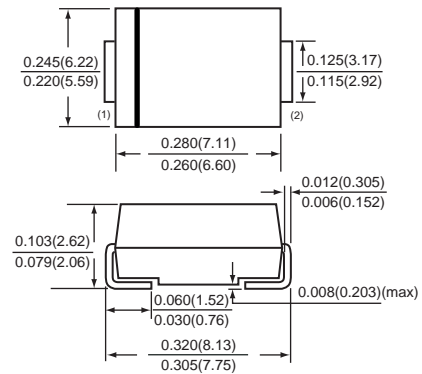
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Weight:** 0.007 ounce 0.25 gram



SMC



Dimensions in inches and (millimeters)

SMC

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

RATINGS	SYMBOL	SCM52LPT	SCM53LPT	SCM54LPT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	Volts
Maximum Average Forward Rectified Current	$I_O$	5.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150			Amps
Typical Junction Capacitance (Note 2)	$C_J$	300			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	10			$^{\circ}\text{C} / \text{W}$
Operating and Storage 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	SCM52LPT	SCM53LPT	SCM54LPT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC	$V_F$	0.40			Volts
Maximum Average Reverse Current	$I_R$	0.5			mAmps
at Rated DC Blocking Voltage		20			mAmps

NOTES : 1. Thermal Resistance ( Junction to Lead ) : PC Board Mounted on 0.55 X 0.55" ( 14 X 14mm ) copper pad area.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

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## RATING CHARACTERISTIC CURVES ( SCM52LPT THRU SCM54LPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

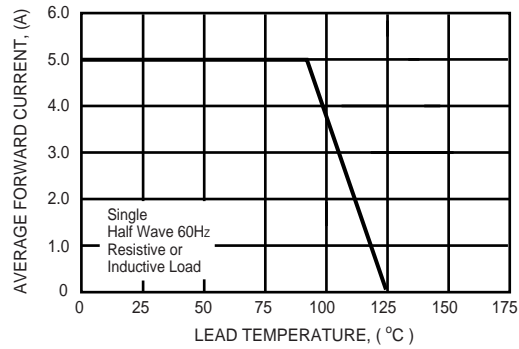


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

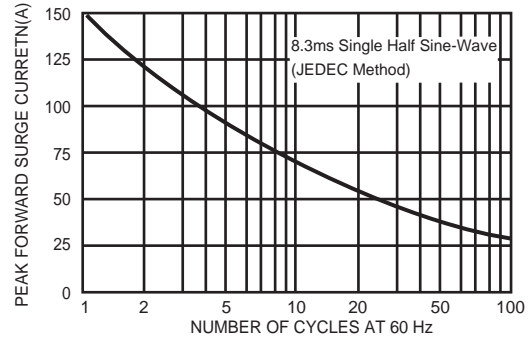


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

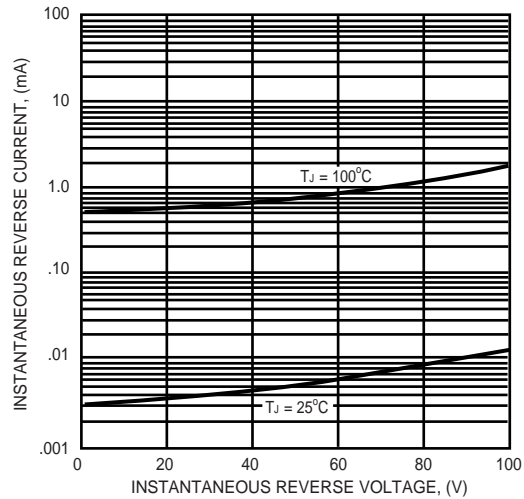


FIG. 4 - INSTANTANEOUS FORWARD CURRENT, (A)

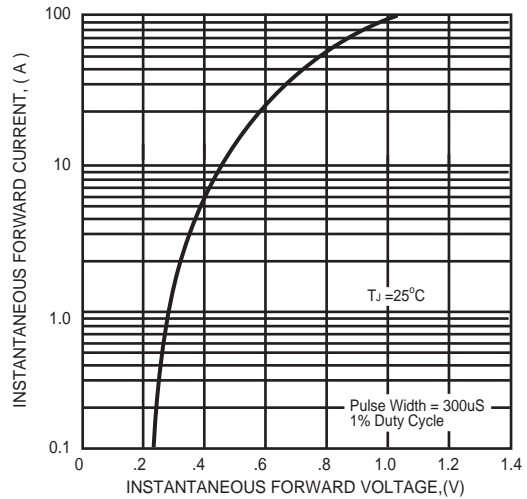


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

