



# CHENMKO ENTERPRISE CO.,LTD

Lead free devices

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts CURRENT 3.0 Amperes

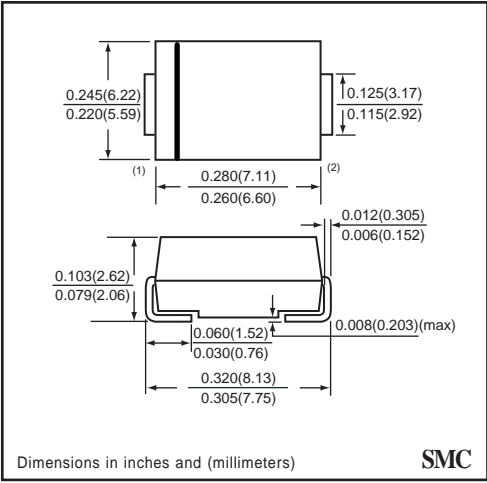
**SCM37PT  
THRU  
SCM310PT**

**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



**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 TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	SCM37PT	SCM38PT	SCM39PT	SCM310PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	70	80	90	100	Volts
Maximum RMS Voltage	VRMS	49	56	63	70	Volts
Maximum DC Blocking Voltage	VDC	70	80	90	100	Volts
Maximum Average Forward Rectified Current at TL (SEE FIG.1)(Note 3)	IO	3.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	100				Amps
Typical Junction Capacitance (Note 2)	CJ	250				pF
Typical Thermal Resistance (Note 3)	R θ JL	15				°C / W
Operating and Storage Temperature Range	TJ,TSTG	-65 to +150				°C

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

CHARACTERISTICS	SYMBOL	SCM37PT	SCM38PT	SCM39PT	SCM310PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC (Note 1)	VF	0.75		0.80		Volts
Maximum Average Reverse Current (Note 1) at Rated DC Blocking Voltage	@ TA = 25°C	0.5				mAmps
	@ TA = 100°C	20				mAmps

NOTES : 1. Pulse test : 300 us pulse width, 1% duty cycle  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
 3. P.C.B. mounted 0.31 x 0.31" ( 8 x 8mm) copper pad areas

## RATING CHARACTERISTIC CURVES ( SCM37PT THRU SCM310PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

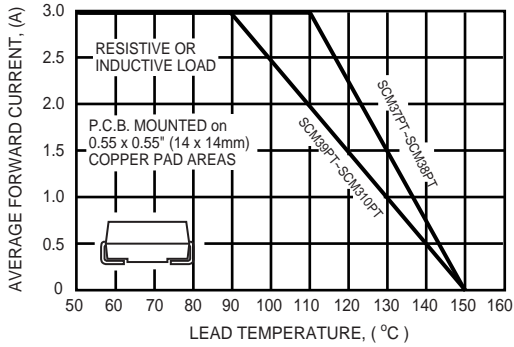


FIG. 2 - INSTANTANEOUS FORWARD CURRENT, (A)

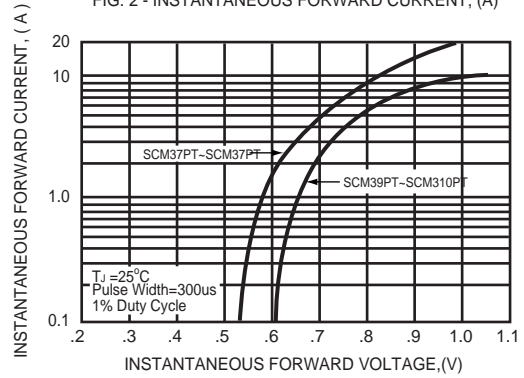


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

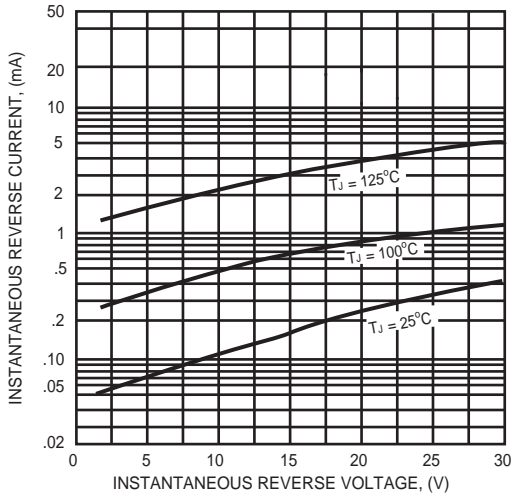


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

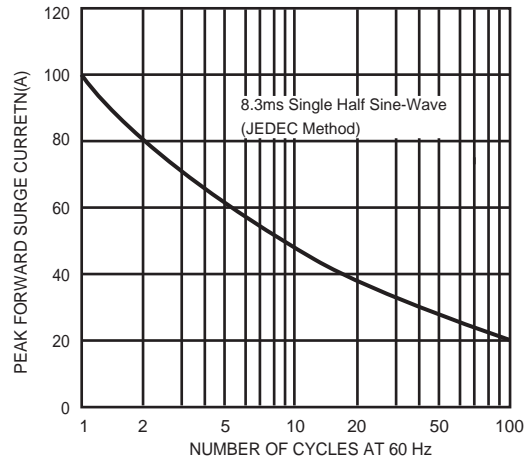


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

