



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 60 Volts CURRENT 3.0 Amperes

SCM32PT

THRU

SCM36PT

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

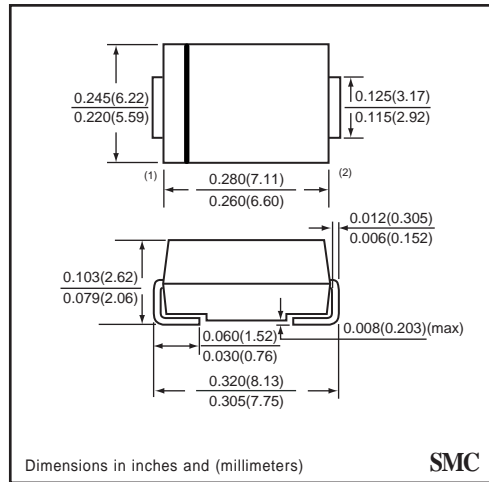
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Weight:** 0.007 ounce 0.25 gram



SMC



Dimensions in inches and (millimeters)

SMC

#### MAXIMUM RATINGS 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	SCM32PT	SCM33PT	SCM34PT	SCM35PT	SCM36PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current at TL (SEE FIG.1)(Note 3)	I <sub>O</sub>	3.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	100					Amps
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	250					pF
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	15					°C / W
Operating Temperature Range	T <sub>J</sub>	-65 to +125			-65 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150					°C

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

CHARACTERISTICS	SYMBOL	SCM32PT	SCM33PT	SCM34PT	SCM35PT	SCM36PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC (Note 1)	V <sub>F</sub>	0.55			0.70		Volts
Maximum Average Reverse Current (Note 1) at Rated DC Blocking Voltage	@ TA = 25°C	0.5					mAmps
	@ TA = 100°C	20			10		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 ( SCM32PT THRU SCM36PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

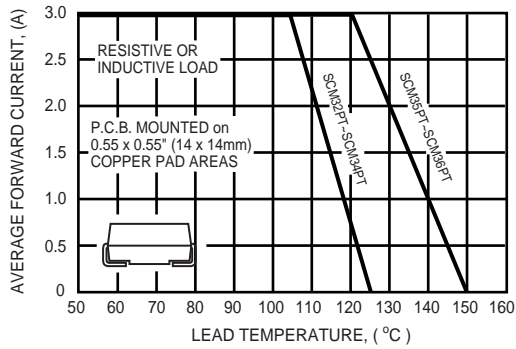


FIG. 2 - INSTANTANEOUS FORWARD CURRENT, (A)

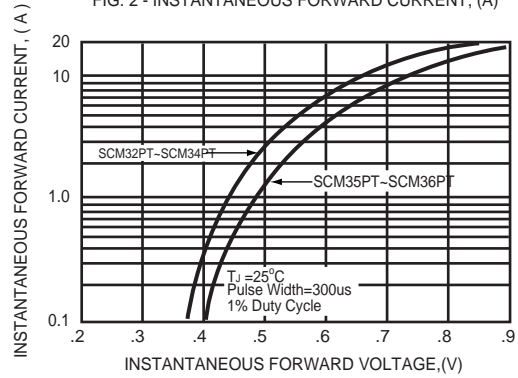


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

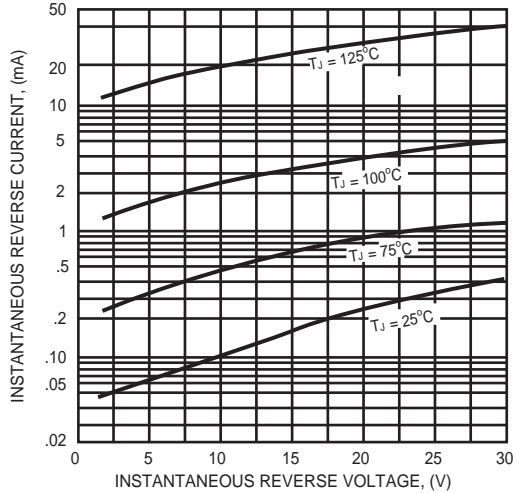


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

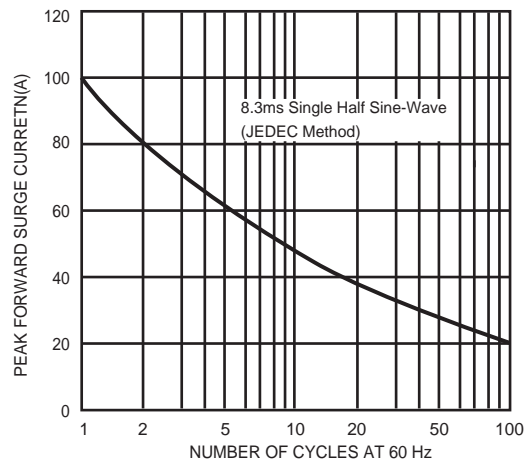


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

