# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts  CURRENT 2.0 Amperes

**SSM27APT**

**THRU**

**SSM210APT**

Lead free devices

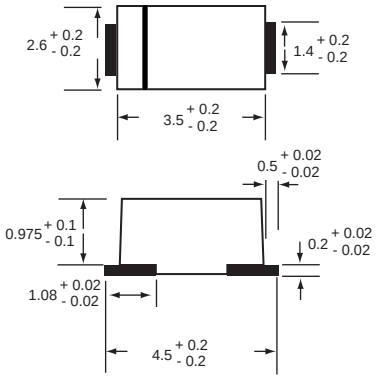
### FEATURES

* 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 SMA-S molded plastic
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
**Polarity:** Color band denotes cathode end

SMA-S




Dimensions in millimeters

SMA-S

### 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 RATINGES** ( At $T_A$ = 25°C unless otherwise noted )

| RATINGS | SYMBOL | SSM27APT | SSM28APT | SSM29APT | SSM210APT | UNITS |
|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 70 | 80 | 90 | 100 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 49 | 56 | 63 | 70 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 70 | 80 | 90 | 100 | Volts |
| Maximum Average Forward Rectified Current | $I_O$ | 2.0 | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 50 | | | | Amps |
| Typical Junction Capacitance (Note 2) | $C_J$ | 110 | | | | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JL}$ | 48 | | | | °C / W |
| Operating and Storage Temperature Range | $T_J$,$T_{STG}$ | -65 to +150 | | | | °C |

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

| CHARACTERISTICS | | SYMBOL | SSM27APT | SSM28APT | SSM29APT | SSM210APT | UNITS |
|---|---|---|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 2.0 A DC | | $V_F$ | 0.75 | | 0.80 | | Volts |
| Maximum Average Reverse Current | @ $T_A$ = 25°C | $I_R$ | 0.5 | | | | mAmps |
| at Rated DC Blocking Voltage | @ $T_A$ = 100°C | | 10 | | | | mAmps |

NOTES : 1. Thermal Resistance ( Junction to Lead ) : PC Board Mounted on 0.2 X 0.2" ( 5 X 5mm ) copper pad area.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

2004-12

# RATING CHARACTERISTIC CURVES ( SSM27APT THRU SSM210APT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

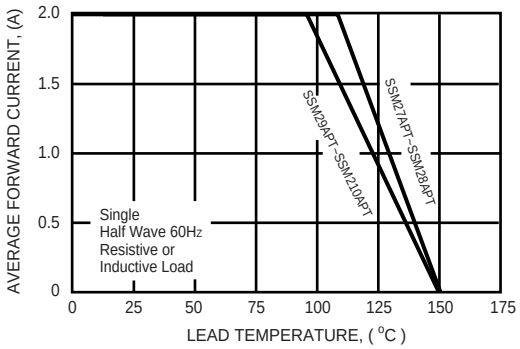



FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

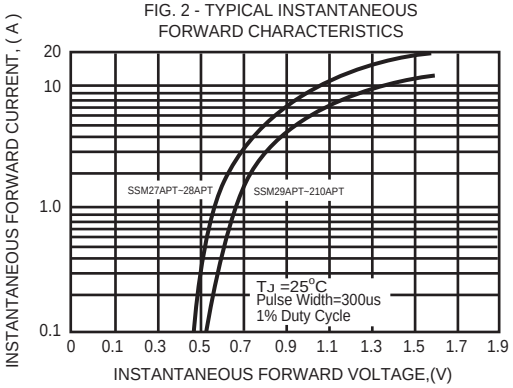



FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

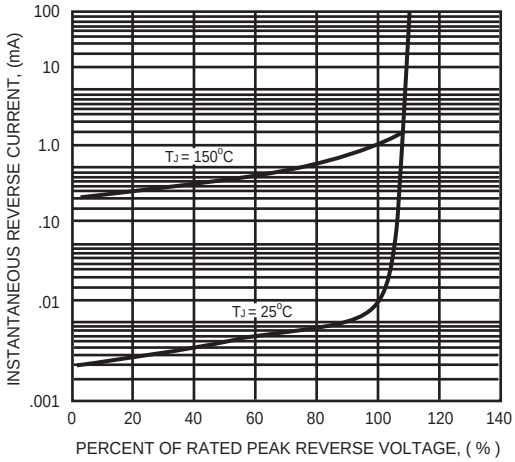



FIG. 4 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT

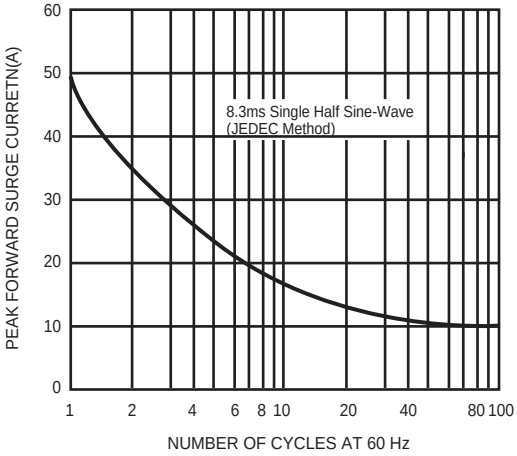



FIG. 5 - TYPICAL JUNCTION CAPACITANCE