



**CHENMKO ENTERPRISE CO.,LTD**

**SURFACE MOUNT**

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 60 Volts CURRENT 1.0 Ampere**

**SMD16APT**

*Lead free devices*

#### FEATURES

- \* For surface mounted applications
- \* 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
- \* Lead free devices

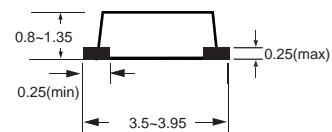
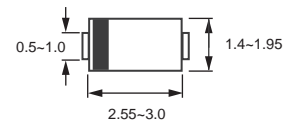
#### MARKING

\* 16

#### CIRCUIT



**SOD-123S**



Dimensions in millimeters

**SOD-123S**

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

RATINGS	SYMBOL	SMD16APT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	60	Volts
Maximum RMS Voltage	$V_{RMS}$	42	Volts
Maximum DC Blocking Voltage	$V_{DC}$	60	Volts
Maximum Average Forward Rectified Current	$I_O$	1.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40	Amps
Typical Junction Capacitance (Note 2)	$C_J$	110	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	60	$^{\circ}\text{C} / \text{W}$
Operating Temperature Range	$T_J$	-65 to +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	SMD16APT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	$V_F$	0.65	Volts
Maximum Average Reverse Current	$I_R$	50	uAmps
at Rated DC Blocking Voltage		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.

2007-06

## RATING CHARACTERISTIC CURVES ( SMD16APT )

FIG. 1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

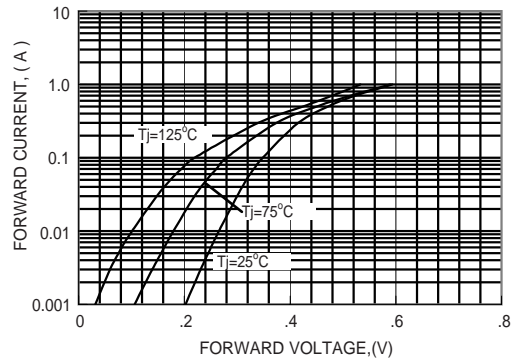


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

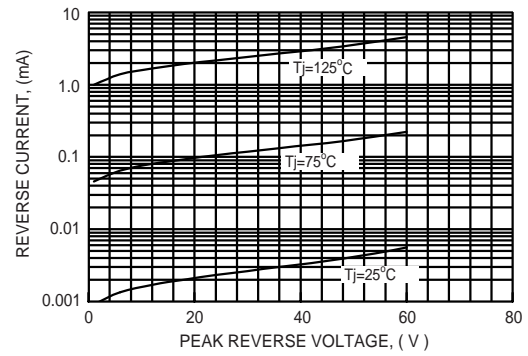


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

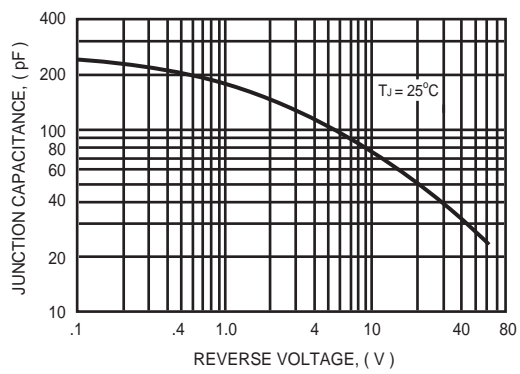


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

