



**CHENMKO ENTERPRISE CO.,LTD**

**SURFACE MOUNT**

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 - 40 Volts CURRENT 1.0 Ampere**

**SMD12ALPT**

**THRU**

**SMD14ALPT**

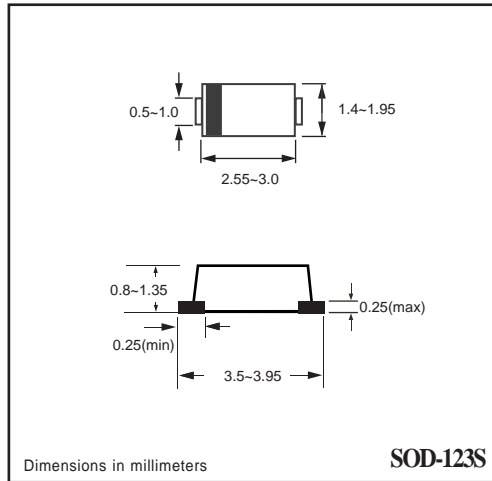
*Lead free devices*

**FEATURES**

- \* Small surface mounting type. (SOD-123S)
- \* Low profile package
- \* Built-in strain relief
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* High surge capability
- \* High temperature soldering guaranteed :  
260°C/10 seconds at terminals
- \* Lead free devices



**SOD-123S**



Dimensions in millimeters

**SOD-123S**

**CIRCUIT**



**MAXIMUM RATINGS** ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	SMD12ALPT	SMD14ALPT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	40	Volts
Maximum RMS Voltage	VRMS	14	28	Volts
Maximum DC Blocking Voltage	VDC	20	40	Volts
Maximum Average Forward Rectified Current at TL = 90°C	Io	1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) TL = 70°C	IFSM	25		Amps
Typical Junction Capacitance (Note 2)	CJ	110		pF
Typical Thermal Resistance (Note 1)	R θ JL	80		°C / W
Storage and Operating Temperature Range	TJ, TSTG	-65 to +125		°C

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

CHARACTERISTICS	SYMBOL	SMD12ALPT	SMD14ALPT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	VF	0.38	0.40	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	1.0		mAmps
	@ TA = 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

2004-07

# RATING CHARACTERISTIC CURVES ( SMD12ALPT THRU SMD14ALPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

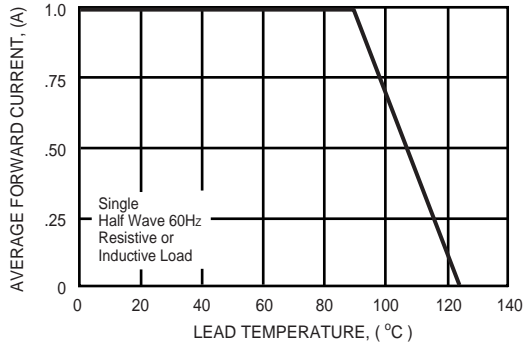


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

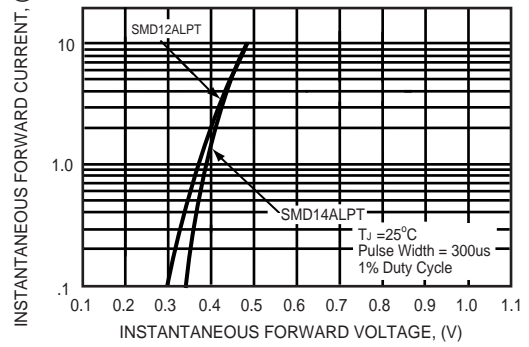


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

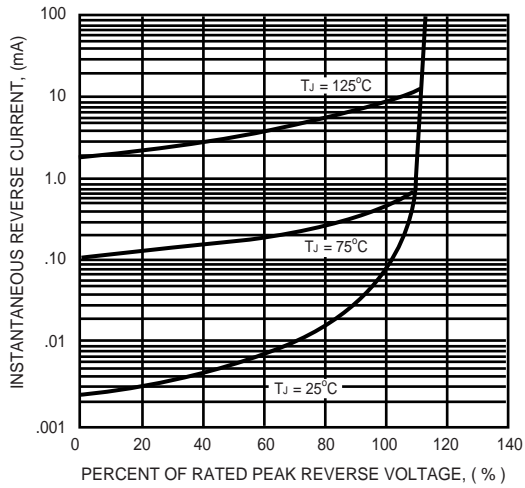


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

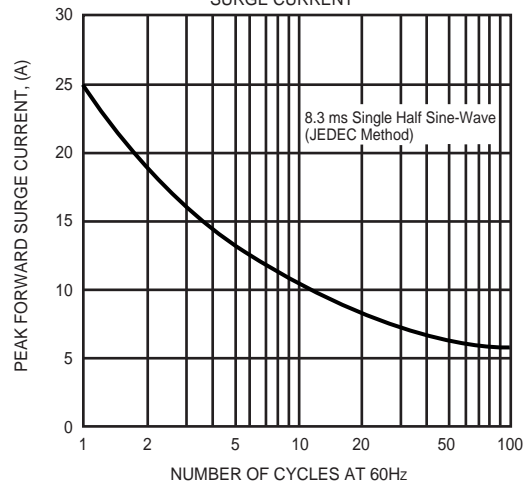


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

