



# CHENMKO ENTERPRISE CO.,LTD

**GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR**  
**VOLTAGE 18 VOLTS**  
**400 WATTS PEAK POWER 1.0 WATT STEADY STATE**

**P4SSMJ18AGP-A**

*Halogens free devices*

## FEATURES

- \* Plastic package
- \* 400W surge capability at 1ms
- \* Glass passivated chip junction in SMA Package
- \* Excellent clamping capability
- \* Low Zener Impedance
- \* Fast response time: typically less than 1.0ps from 0 volts to BV min.
- \* Typical IR less than 1 uA above 10V
- \* High temperature soldering guaranteed : 260°C/10 seconds at terminals

## MECHANICAL DATA

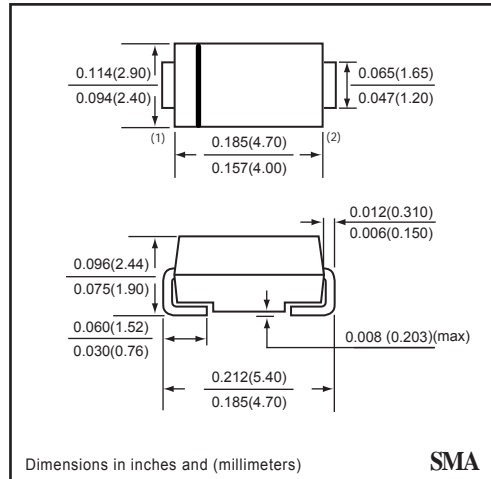
**Case:** JEDEC SMA molded plastic  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.002 ounce, 0.064 gram

## 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%.



**SMA**



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

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at TA = 25°C, Tp = 1ms ( Note1 )	PPK	Minimum 400	Watts
Steady State Power Dissipation at TL = 75°C	Pd	1.0	Watts
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load ( Note 2 )	IFSM	40	Amps
Operating and Storage Temperature Range	TJ, TSTG	-65 to +175	°C

NOTES : 1. Non-repetitive current pulse, per Fig. 3 and derated above T A = 25°C per Fig. 2.  
 2. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.  
 3. PC Board Mounted on 0.2 X 0.2" ( 5 X 5mm ) copper pad area

2015-03

## ELECTRICAL CHARACTERISTICS (P4SSMJ18AGP-A)

TYPE	Zener Voltage VZ (V) @ IZT			Test current	Working Peak Reverse Voltage	Maximum Reverse Leakage Current	Maximum Reverse Current	Maximum reverse Voltage @IRSM
	Min	Nom	Max					
	Volts	Volts	Volts	IZT(mA)	Vrwm(V)	IR(uA)	I <sub>rsm</sub> (A)	V <sub>rsm</sub> (V)
P4SSMJ18AGP-A	17.1	18	18.9	1	15.3	5	17	25.2

## RATING CHARACTERISTIC CURVES ( P4SSMJ18AGP-A )

FIG. 1 - PEAK PULSE POWER RATING CURVE

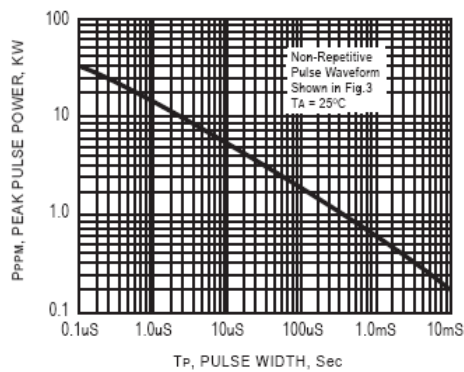


FIG. 2 - PULSE DERATING CURVE

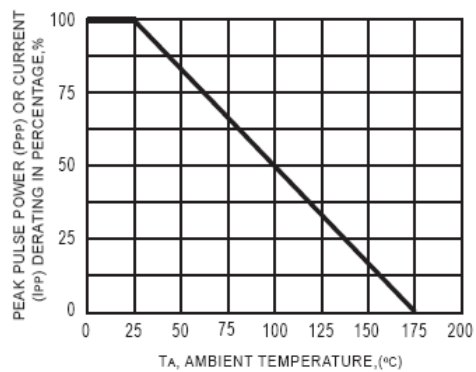


FIG. 3 - PULSE WAVEFORM

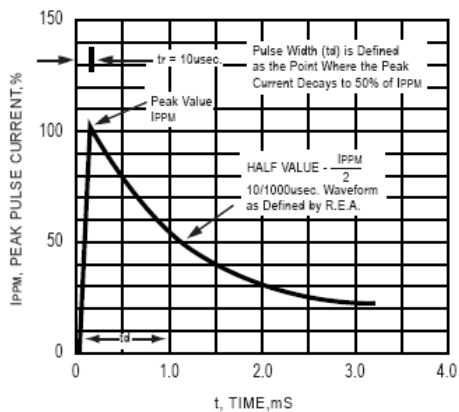
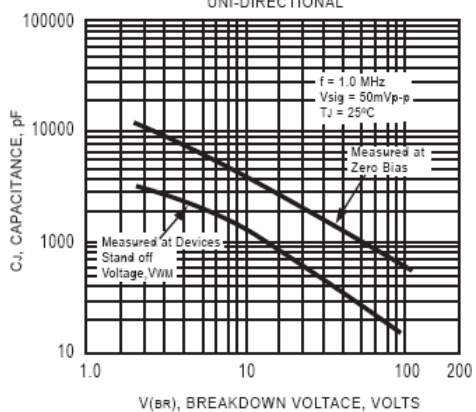


FIG. 4 - TYPICAL JUNCTION CAPACITANCE UNI-DIRECTIONAL



## RATING CHARACTERISTIC CURVES ( P4SSMJ18AGP-A )

FIG. 5 - STEADY STATE POWER DERATING CURVE

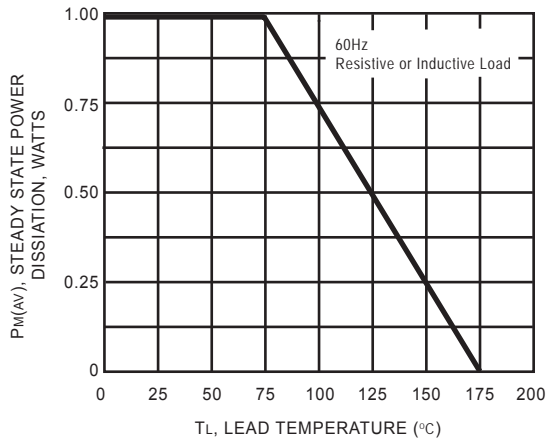


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL

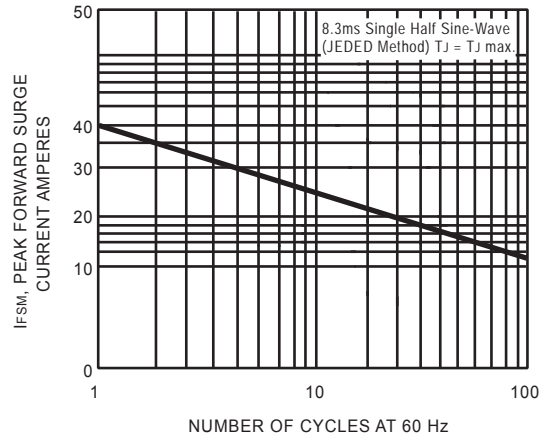
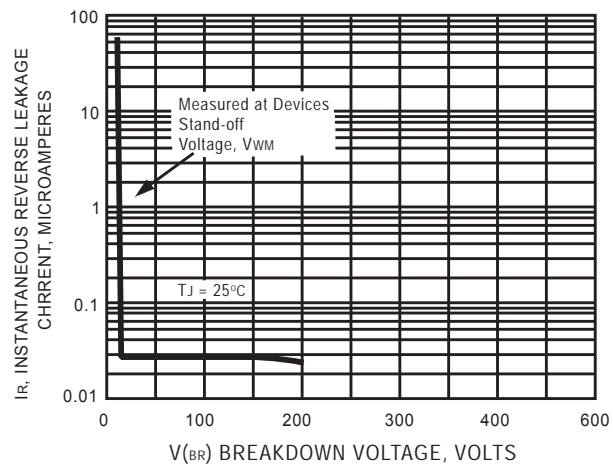


FIG. 7 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS





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**SURFACE MOUNT**  
*RECOMMENDED FOOT PRINT*  
*all dimensions in mm*

**SMA**

