



CHENMKO ENTERPRISE CO.,LTD

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE-6.8 TO 200 VOLTS
400 WATTS PEAK POWER 1.0 WATT STEADY STATE

Halogens free devices

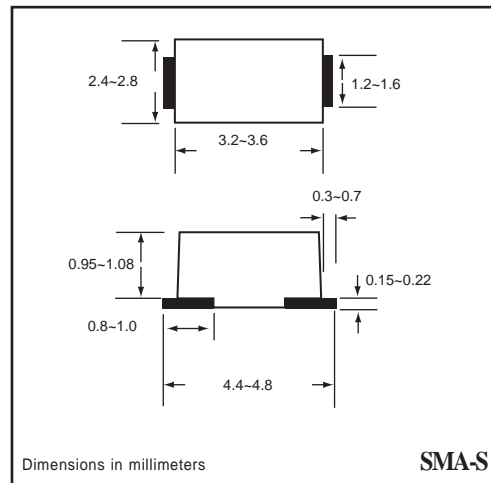
P4SSMJ6.8AAGP
THRU
P4SSMJ200AAGP

FEATURES

- * Plastic package
- * 400W surge capability at 1ms
- * Glass passivated chip junction in SMA-S 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-S molded plastic
Polarity: Color band denotes cathode end



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%.

DEVICES FOR BIDIRECTIONAL APPLICATIONS

For Bidirectional use C or CA Suffix for types P4SSMJ6.8A thru types P4SSMJ200A
 Electrical characteristics apply in both directions.

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

| RATINGS | SYMBOL | VALUE | UNITS |
|--|----------|-------------|-------|
| Peak Power Dissipation at TA = 25°C, Tp = 1ms (Note 1) | 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 TA = 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

| PRODUCT NO. | Breakdown Voltage | | | @ IT (mA) | Working Peak Reverse Voltage | Maximum Reverse Leakage at Vrwm | Maximum Reverse Current (NOTE 2) | Maximum Reverse Voltage at Irsm (clamping) | Maximum Temperature Coefficient of Vbr |
|---------------|----------------------|------|------|-------------|------------------------------|---------------------------------|------------------------------------|--|--|
| | VBR Volts (NOTE 1) | | | | | | | | |
| | MIN. | NOM. | MAX. | Vrwm (V) | Ir (uA) | Irsm (A) | Vrsm (V) | (%C) | |
| P4SSMJ6.8AAGP | 6.45 | 6.8 | 7.14 | 10 | 5.80 | 1000 | 40 | 10.5 | 0.057 |
| P4SSMJ7.5AAGP | 7.13 | 7.5 | 7.88 | 10 | 6.40 | 500 | 37 | 11.3 | 0.061 |
| P4SSMJ8.2AAGP | 7.79 | 8.2 | 8.61 | 10 | 7.02 | 200 | 35 | 12.1 | 0.065 |
| P4SSMJ9.1AAGP | 8.65 | 9.1 | 9.55 | 1.0 | 7.78 | 50 | 31 | 13.4 | 0.068 |
| P4SSMJ10AAGP | 9.5 | 10 | 10.5 | 1.0 | 8.55 | 10 | 29 | 14.5 | 0.073 |
| P4SSMJ11AAGP | 10.5 | 11 | 11.6 | 1.0 | 9.40 | 5.0 | 27 | 15.6 | 0.075 |
| P4SSMJ12AAGP | 11.4 | 12 | 12.6 | 1.0 | 10.2 | 5.0 | 25 | 16.7 | 0.078 |
| P4SSMJ13AAGP | 12.4 | 13 | 13.7 | 1.0 | 11.1 | 5.0 | 23 | 18.2 | 0.081 |
| P4SSMJ15AAGP | 14.3 | 15 | 15.8 | 1.0 | 12.8 | 5.0 | 20 | 21.2 | 0.084 |
| P4SSMJ16AAGP | 15.2 | 16 | 16.8 | 1.0 | 13.6 | 5.0 | 19 | 22.5 | 0.086 |
| P4SSMJ18AAGP | 17.1 | 18 | 18.9 | 1.0 | 15.3 | 5.0 | 17 | 25.2 | 0.088 |
| P4SSMJ20AAGP | 19.0 | 20 | 21.0 | 1.0 | 17.1 | 5.0 | 15 | 27.7 | 0.090 |
| P4SSMJ22AAGP | 20.9 | 22 | 23.1 | 1.0 | 18.8 | 5.0 | 14 | 30.6 | 0.092 |
| P4SSMJ24AAGP | 22.8 | 24 | 25.2 | 1.0 | 20.5 | 5.0 | 13 | 33.2 | 0.094 |
| P4SSMJ27AAGP | 25.7 | 27 | 28.4 | 1.0 | 23.1 | 5.0 | 11.2 | 37.5 | 0.096 |
| P4SSMJ30AAGP | 28.5 | 30 | 31.5 | 1.0 | 25.6 | 5.0 | 10 | 41.4 | 0.097 |
| P4SSMJ33AAGP | 31.4 | 33 | 34.7 | 1.0 | 28.2 | 5.0 | 9 | 45.7 | 0.098 |
| P4SSMJ36AAGP | 34.2 | 36 | 37.8 | 1.0 | 30.8 | 5.0 | 8.4 | 49.9 | 0.099 |
| P4SSMJ39AAGP | 37.1 | 39 | 41.0 | 1.0 | 33.3 | 5.0 | 7.8 | 53.9 | 0.100 |
| P4SSMJ43AAGP | 40.9 | 43 | 45.2 | 1.0 | 36.8 | 5.0 | 7.1 | 59.3 | 0.101 |
| P4SSMJ47AAGP | 44.7 | 47 | 49.4 | 1.0 | 40.2 | 5.0 | 5.0 | 64.8 | 0.101 |
| P4SSMJ51AAGP | 48.5 | 51 | 53.6 | 1.0 | 43.6 | 5.0 | 6.0 | 70.1 | 0.102 |
| P4SSMJ56AAGP | 53.2 | 56 | 58.8 | 1.0 | 47.8 | 5.0 | 5.5 | 77.0 | 0.103 |
| P4SSMJ62AAGP | 58.9 | 62 | 65.1 | 1.0 | 53.0 | 5.0 | 5.0 | 85.0 | 0.104 |
| P4SSMJ68AAGP | 64.6 | 68 | 71.4 | 1.0 | 58.0 | 5.0 | 4.6 | 92.0 | 0.104 |
| P4SSMJ75AAGP | 71.3 | 75 | 78.8 | 1.0 | 64.1 | 5.0 | 4.1 | 103 | 0.105 |
| P4SSMJ82AAGP | 77.9 | 82 | 86.1 | 1.0 | 70.1 | 5.0 | 3.7 | 113 | 0.105 |
| P4SSMJ91AAGP | 86.5 | 91 | 95.5 | 1.0 | 77.8 | 5.0 | 3.4 | 125 | 0.106 |
| P4SSMJ100AAGP | 95.0 | 100 | 105 | 1.0 | 85.5 | 5.0 | 3.1 | 137 | 0.106 |
| P4SSMJ110AAGP | 105 | 110 | 116 | 1.0 | 94.0 | 5.0 | 2.8 | 152 | 0.107 |
| P4SSMJ120AAGP | 114 | 120 | 126 | 1.0 | 102 | 5.0 | 2.5 | 165 | 0.107 |
| P4SSMJ130AAGP | 124 | 130 | 137 | 1.0 | 111 | 5.0 | 2.3 | 179 | 0.107 |
| P4SSMJ150AAGP | 143 | 150 | 158 | 1.0 | 128 | 5.0 | 2.0 | 207 | 0.108 |
| P4SSMJ160AAGP | 152 | 160 | 168 | 1.0 | 136 | 5.0 | 1.9 | 219 | 0.108 |
| P4SSMJ170AAGP | 162 | 170 | 179 | 1.0 | 145 | 5.0 | 1.8 | 234 | 0.108 |
| P4SSMJ180AAGP | 171 | 180 | 189 | 1.0 | 154 | 5.0 | 1.7 | 246 | 0.108 |
| P4SSMJ200AAGP | 190 | 200 | 210 | 1.0 | 171 | 5.0 | 1.53 | 274 | 0.108 |

RATING CHARACTERISTIC CURVES (P4SSMJ6.8AAGP~ P4SSMJ200AAGP)

FIG. 1 - PEAK PULSE POWER RATING CURVE

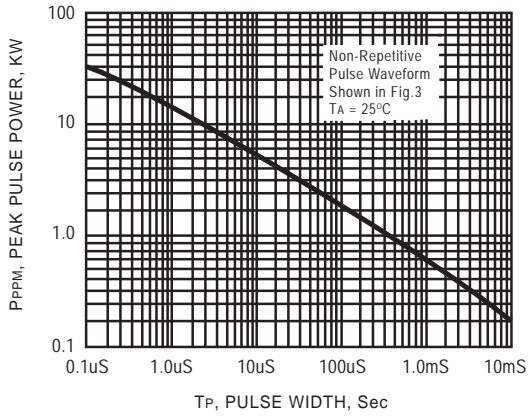


FIG. 2 - PULSE DERATING CURVE

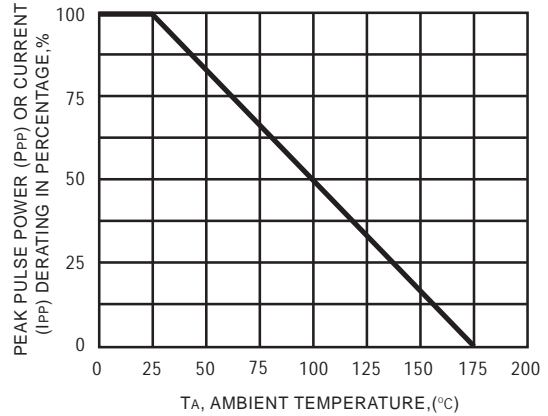


FIG. 3 - PULSE WAVEFORM

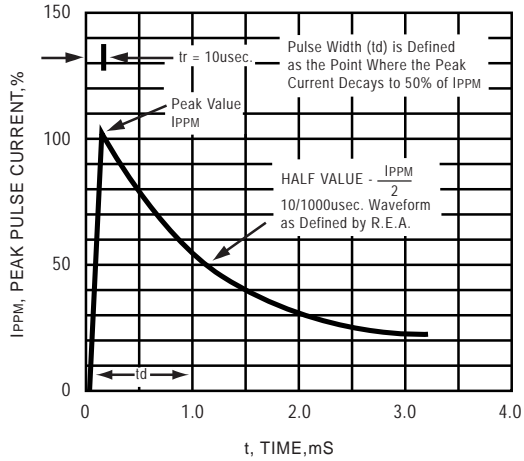
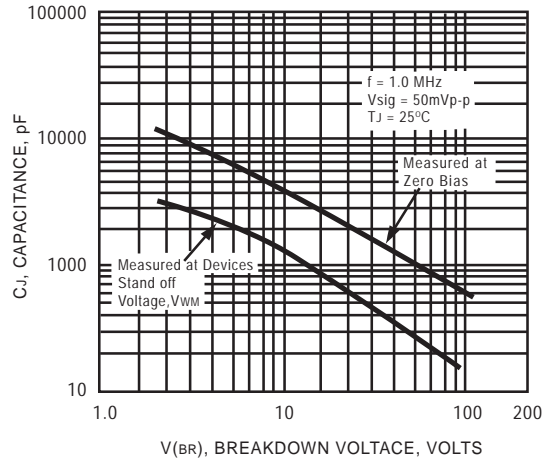


FIG. 4 - TYPICAL JUNCTION CAPACITANCE UNI-DIRECTIONAL



RATING CHARACTERISTIC CURVES (P4SSMJ6.8AAGP ~ P4SSMJ200AAGP)

FIG. 5 - STEADY STATE POWER DERATING CURVE

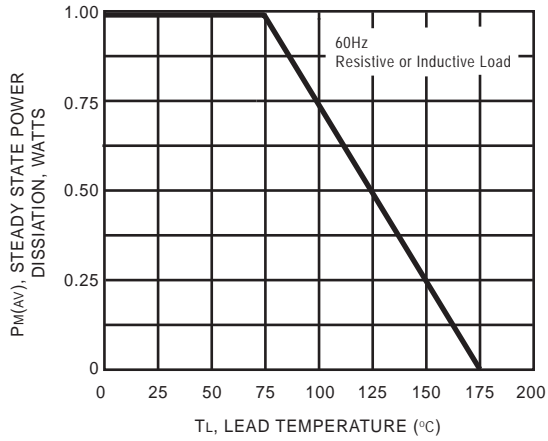


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL

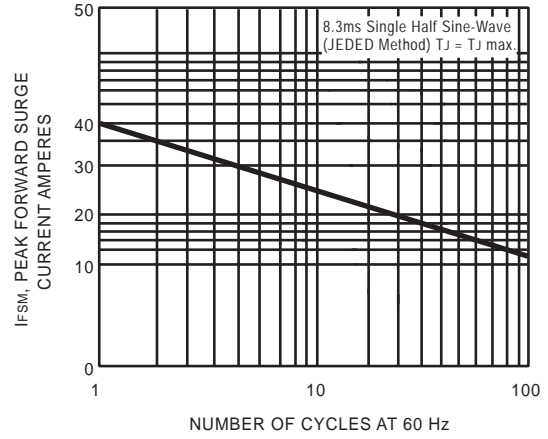


FIG. 7 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

