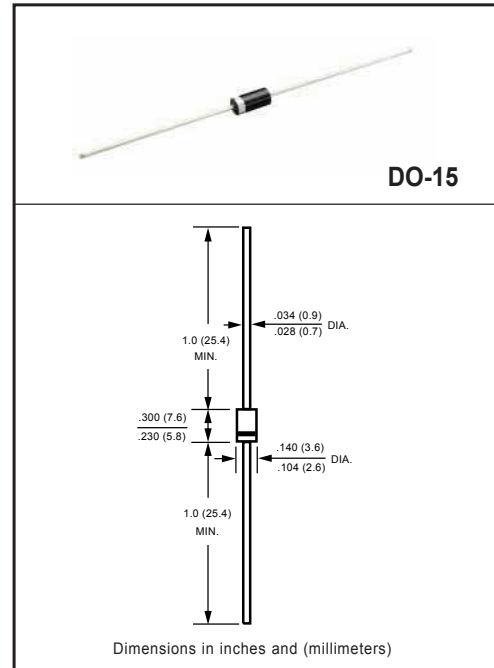


GPP TRANSIENT VOLTAGE SUPPRESSOR
600 WATT PEAK POWER 5.0 WATTS STEADY STATE

FEATURES

- * Plastic package has underwriters laboratory
- * Glass passivated chip construction
- * 600 watt surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time



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 RATINGS (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | VALUE | UNITS |
|---|----------|--------------|-------|
| Peak Power Dissipation at TA = 25°C, TP = 1mS (Note 1) | PPPM | Minimum 600 | W |
| Steady State Power Dissipation at TL = 75°C lead length, .375" (9.5 mm) (Note 2) | PM(AV) | 5.0 | W |
| Peak forward surge current, 8.3ms single half sine wave superimpose on rated load (JEDEC METHOD) (Note 3) | IFSM | 100 | A |
| Maximum instantaneous forward voltage at 50A for unidirectional only | VF | 5.0 | V |
| Operating and Storage Temperature Range | TJ, TSTG | -55 to + 150 | °C |

- NOTES : 1. Non-repetitive current pulse, per Fig.3 and derated above TA = 25°C per Fig.2.
2. Mounted on 0.2 X 0.2" (5.0 X 5.0mm) copper pad to each terminal.
3. Measured on 8.3ms single half sine-wave or equivalent square wave duty cycle=4 pulses per minute maximum.
4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (P6KE510A)

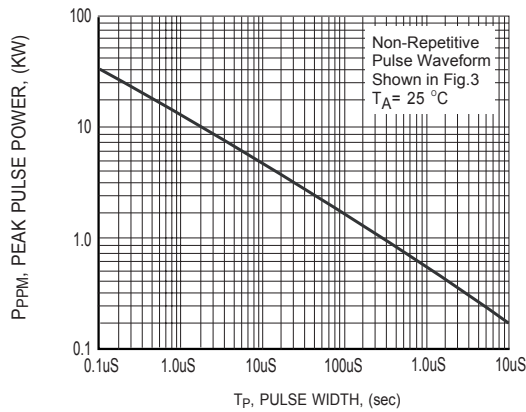


FIG.1 PEAK PULSE POWER RATING CURVE

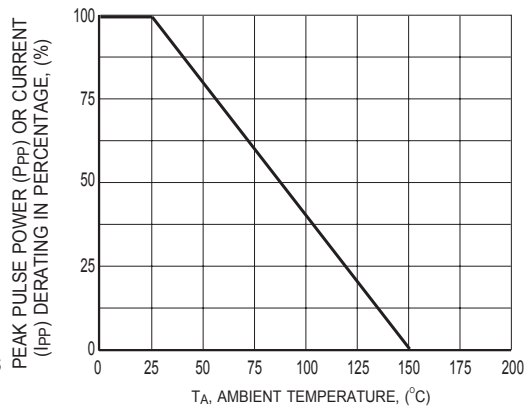


FIG.2 PULSE DERATING CURVE

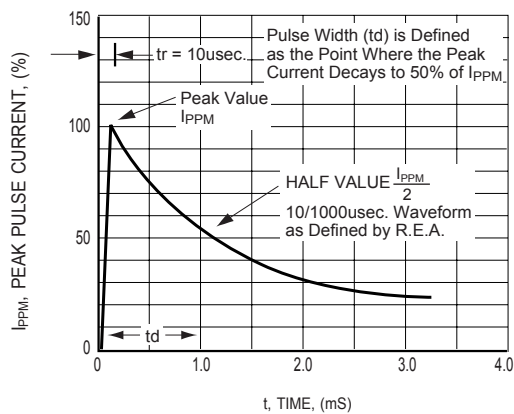


FIG.3 PULSE WAVEFORM

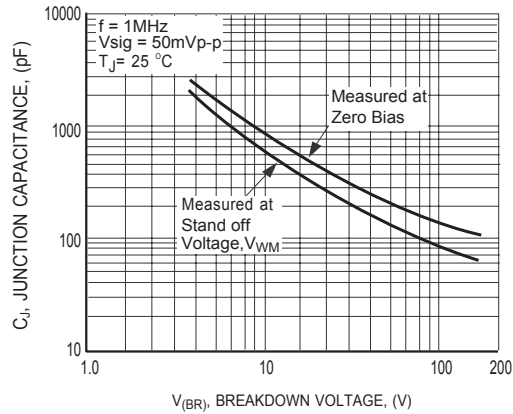


FIG.4 TYPICAL JUNCTION CAPACITANCE BIDIRECTIONAL

TRANSIENT VOLTAGE SUPPRESSORS

600W SERIES TVS DIODES / DO-15 (CASE 8) 600W

| TYPE | Breakdown Voltage | | | Reverse Stand off Voltage V _{WM} (Volts) | Maximum Reverse Leakage at V _{WM} I _D (μ A) | Maximum Peak Pulse Current I _{PPM} (Amps) | Maximum Clamping Voltage at I _{PPM} V _C (Volts) |
|----------|----------------------------|-------|-------------------------|---|---|--|--|
| | V _{BR} (Volts) | | @I _T (mA) | | | | |
| | MIN. | MAX. | | | | | |
| P6KE510A | 484.5 | 535.5 | 10 | 433.5 | 5 | 0.84 | 714 |

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.