

# P6KE SERIES

## GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR



**CHENG-YI  
ELECTRONIC**

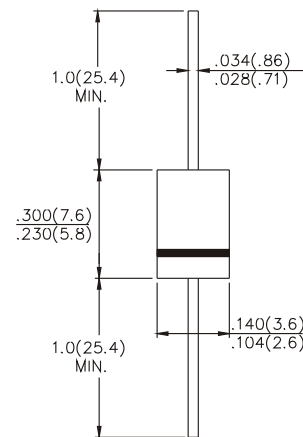


VOLTAGE 6.8 to 440 VOLTS  
600 WATT PEAK POWER  
5.0 WATTS STEADY STATE

### FEATURES

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Glass passivated chip junction in DO-15 package
- 400W surge capability at 1 ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1.0 ps from 0 volts to BV min.
- Typical IR less than 1  $\mu$ A above 10V
- High temperature soldering guaranteed:  
260 °C/10 seconds /.375", (9.5mm)  
lead length/51bs., (2.3kg) tension

### DO-15



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC DO-15 Molded plastic
- Terminals: Plated Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode except Bipolar
- Mounting Position: Any
- Weight: 0.015 ounce, 0.4 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

RATINGS	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation at TA=25°C, TP=1ms (NOTE 1)	P <sub>PK</sub>	Minimum 6000	Watts
Steady Power Dissipation at TL=75°C Lead Lengths .375", (9.5mm) (NOTE 2)	P <sub>D</sub>	5.0	Watts
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (NOTE 3)	I <sub>FSM</sub>	100	Amps
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 175	°C

- Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig.2  
2. Measured on copper Leaf area of 1.57 in<sup>2</sup> (40mm<sup>2</sup>)  
3. 8.3ms single half sine-wave, duty cycle=4 pulses minutes maximum.

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### RATING AND CHARACTERISTICS CURVES P6KE SERIES

Fig. 1 - PEAK PULSE POWER VS PULSE TIME

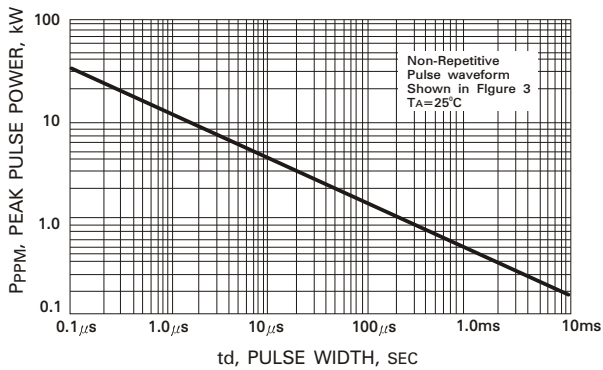


Fig. 2 - PULSE DERATING CURVE

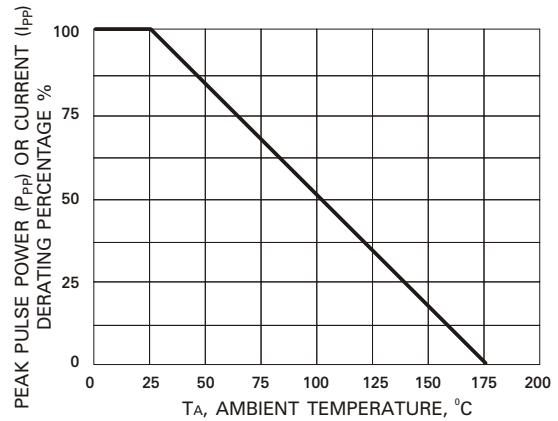


Fig. 3 - PULSE WAVEFORM

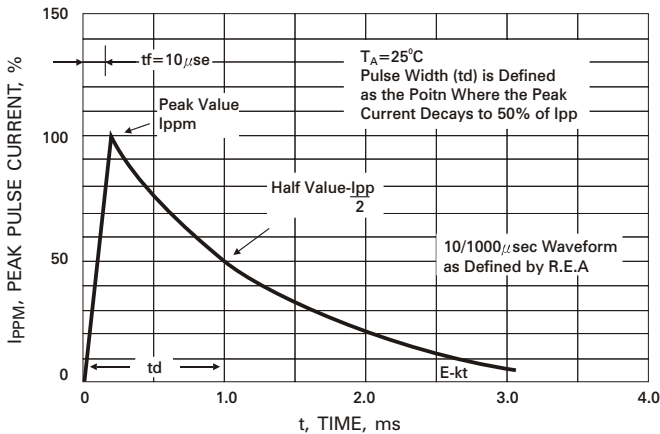


Fig. 4 - TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

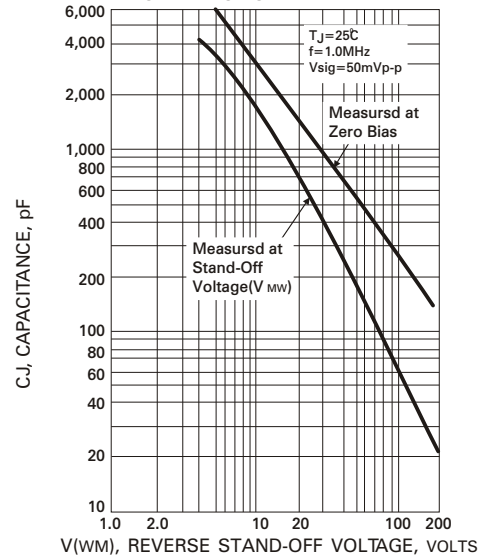


Fig. 5 - STEADY STATE POWER DERATING CURVE

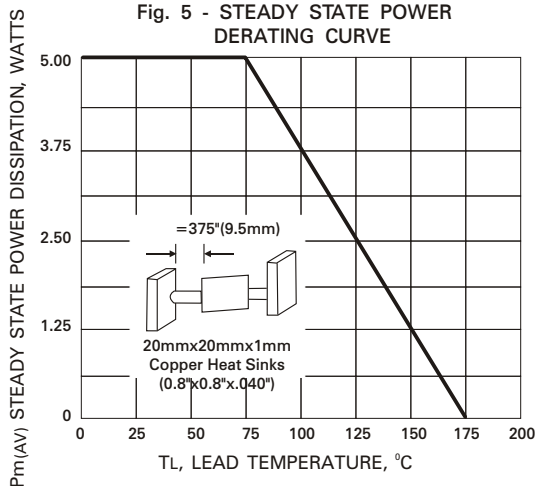


Fig. 6 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

