

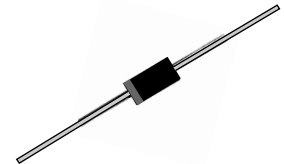
600W Transient Voltage Suppressors

(Pb) Lead(Pb)-Free

Feature:

- * Plastic package
- * Glass passivated chip junction in DO-15 Package
- * 600W surge capability at 10/1000 μ s wave form
- * 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 μ A above 10V
- * High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension

Peak Pulse Power
600 Watt
Break Down Voltage
600 VOLTS



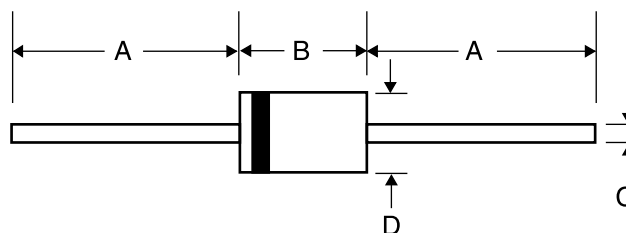
DO-15
(DO-204AC)

Mechanical Data

- * Case: JEDEC DO-15 molded Plastic.
- * Terminals: Axial Leads, Solderable per MIL-STD-750, Method 2026
- * Polarity: Color Band Denotes Cathode Except Bipolar
- * Mounting Position: Any
- * Weight: 0.4 grams(approx), 0.015 ounce.

DO-15 Outline Dimensions

Axial Device



	A		B		C		D	
Dim	Min	Max	Min	Max	Min	Max	Min	Max
DO-15	25.4	-	5.8	7.6	0.71	0.86	2.6	3.6

Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise Noted)

Characteristics	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$, $t_p=1.0\text{ ms}$ ⁽¹⁾	P_{PPM}	600(Min)	W
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$ Lead Lengths .375"(9.5mm) ⁽²⁾	$P_{M(AV)}$	5	W
Peak Forward Surge Current 8.3ms Single Half Sine-Wave, Superimposed on Rated Load(JEDEC Method) ⁽³⁾	I_{FSM}	100	A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to -175	$^{\circ}\text{C}$

NOTE: 1. Non-Repetitive Current Pulse, per FIG3 and Derated above $T_A=25^{\circ}\text{C}$ per FIG2

2. Mounted on Copper Pads Area of 1.6×1.6 "($40 \times 40\text{mm}$) per FIG.5.

3. 8.3ms Single Half Sine-Wave, or equivalent Square Wave, Duty Cycle=4 pulses per minutes Maximum.

Electrical Characteristics

P6KE PART NUMBER	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN.@ I_T	BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX.@ I_T	TEST CURRENT $I_T (mA)$	MAXIMUM CLAMPING VOLTAGE @ $I_{pp} V_c(V)$	PEAK PULSE CURRENT $I_{pp}(A)$	REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$
P6KE600C	512	540	660	1	828	0.75	5

For bidirectional type having V_{rwm} of 10 volts and less, the IR limit is double.

For parts without A, the V_{BR} is $\pm 10\%$

RATINGS AND CHARACTERISTIC CURVES

Ratings and

Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 - Peak Pulse Power Rating Curve

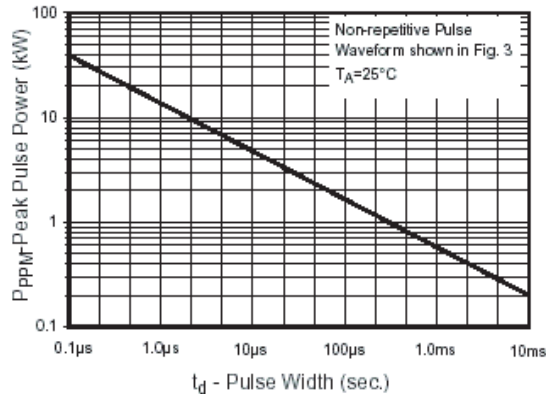


Fig.2 - Pulse Derating Curve

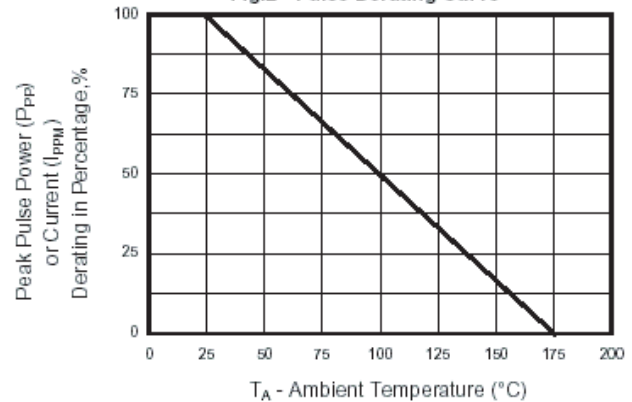


Fig.3 - Pulse Waveform

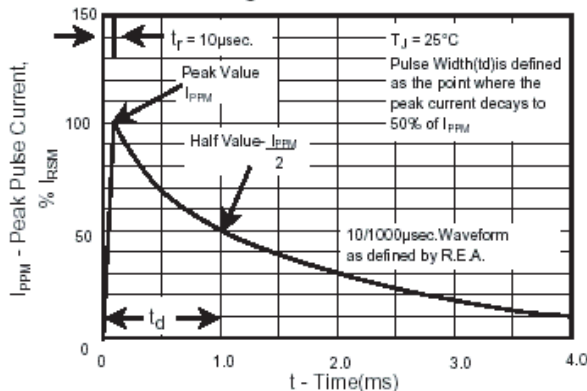


Fig.4 - Typ. Junction Capacitance Uni-Directional

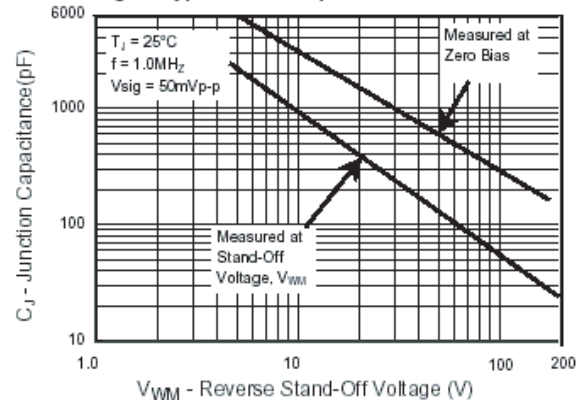


Fig.5 - steady State Power Derating Curve

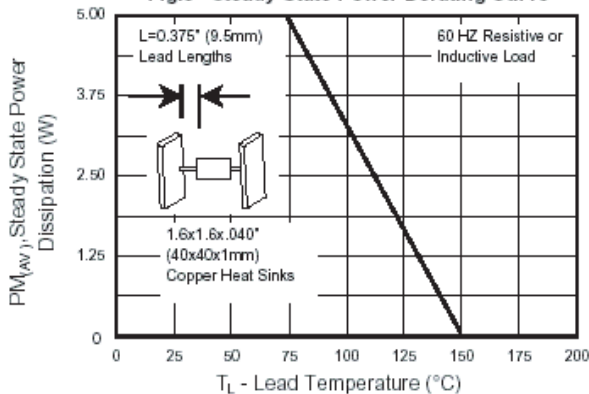


Fig.6 - Max. Non-Repetitive Forward Surge Current

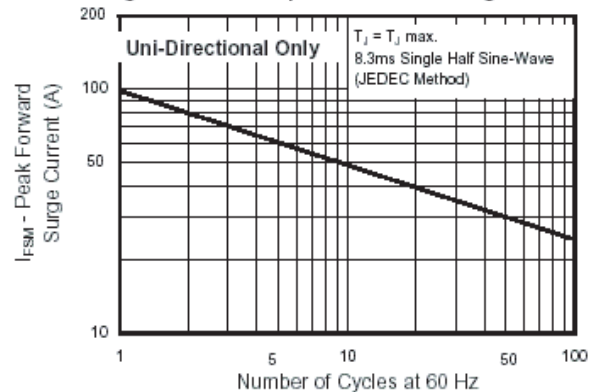


Fig.7 - Typical Reverse Leakage Characteristics

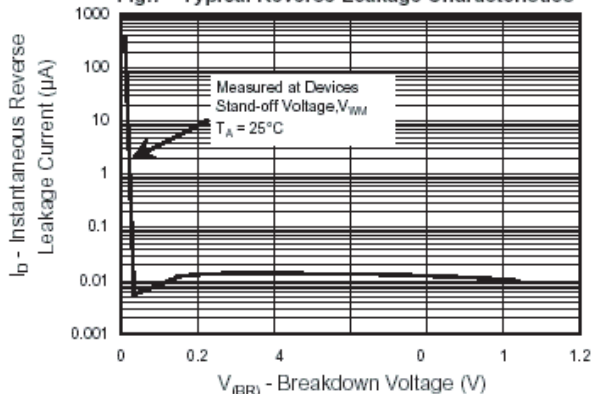


Fig.8 - Typ. Transient Thermal Impedance

