

# P6KE50CA

## Transient Voltage Suppressors

Pppm: 600W



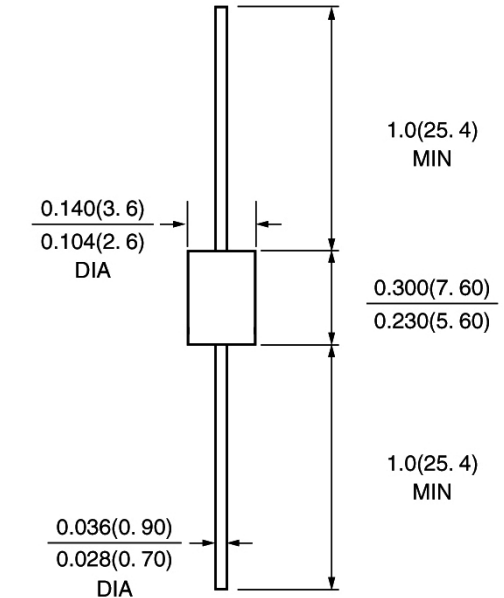
### FEATURE

Low power loss  
High surge capability  
Glass passivated chip junction  
High temperature soldering guaranteed  
250°C/10sec/0.375" lead length at 5 lbs tension

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: no marking  
Mounting position: any

### DO-15/DO-204AC



Dimensions in inches and (millimeters)

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

PARAMETER	SYMBOL	P6KE50CA	units
Peak power dissipation with a 10/1000 $\mu$ s waveform (1) (Fig. 1)	$P_{PPM}$	600	W
Peak pulse current with a 10/1000 $\mu$ s waveform (1)	$I_{PPM}$	8.3	A
Breakdown Voltage at $I_T=1mA$	$V_{BR}$	47.6min 52.5max	V
Maximum Reverse Leakage at $V_{WM}=42.7V$	$I_R$	1.0	$\mu$ A
Maximum Clamping Voltage at $I_{PPM}$	$V_C$	72	V
Power dissipation on infinite heatsink at $T_L = 75 \text{ }^\circ\text{C}$ (Fig. 5)	$P_D$	5.0	W
Typical thermal resistance junction-to-lead	$R_{th(jl)}$	20	$^\circ\text{C/W}$
Typical thermal resistance junction-to--ambient	$R_{th(ja)}$	75	$^\circ\text{C/W}$
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-55 to +175	$^\circ\text{C}$

Note:

(1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25 °C per Fig. 2

# RATINGS AND CHARACTERISTIC CURVES P6KE50CA

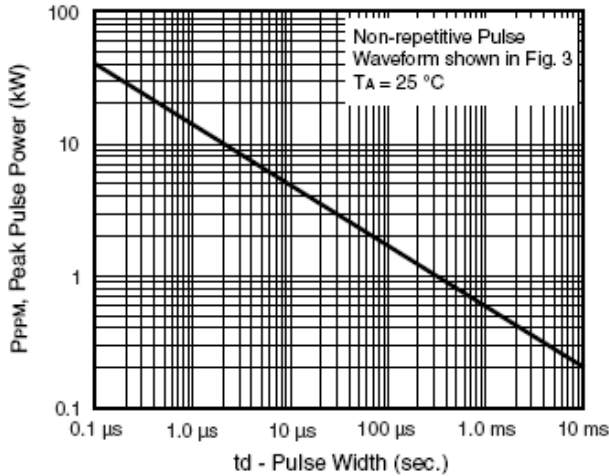


Figure 1. Peak Pulse Power Rating Curve

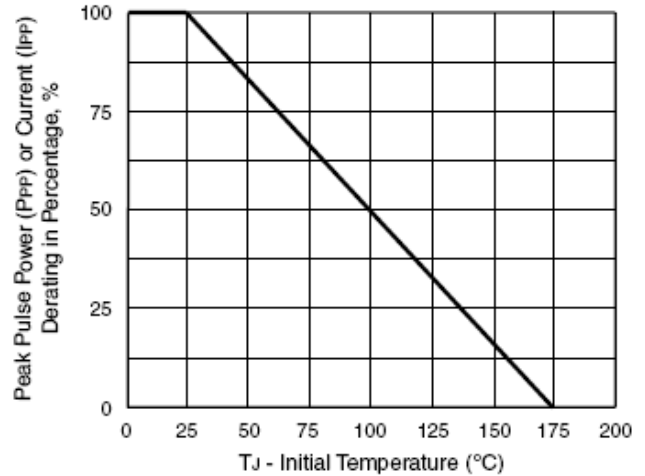


Figure 2. Pulse Power or Current versus Initial Junction Temperature

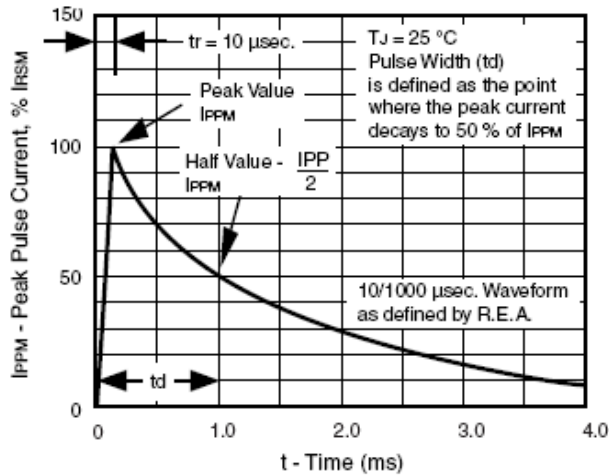


Figure 3. Pulse Waveform

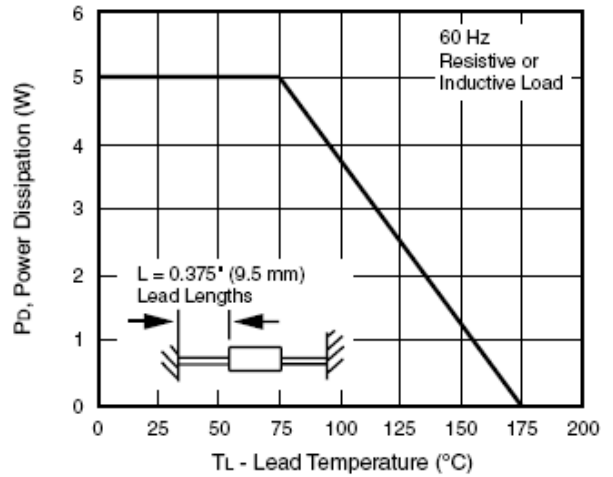


Figure 4. Power Derating Curve

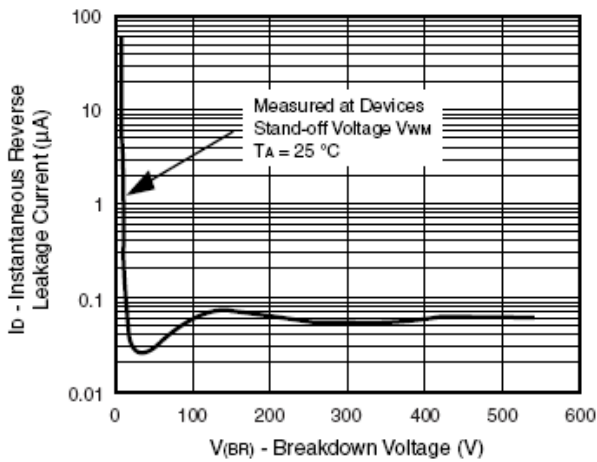


Figure 5. Typical Reverse Leakage Characteristics

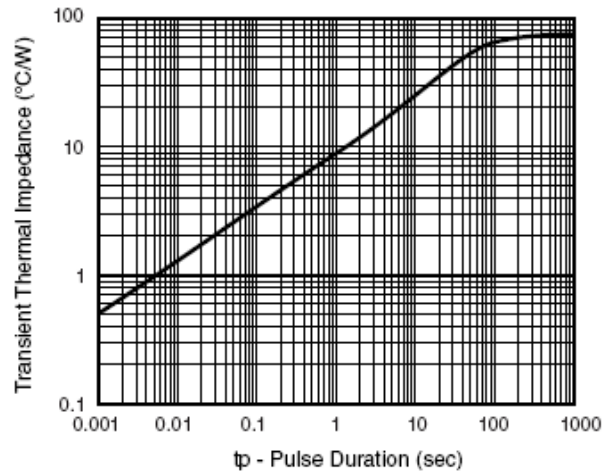


Figure 6. Typical Transient Thermal Impedance