

P6KE39A

Transient Voltage Suppressors

Pppm: 600W

IFSM: 100A



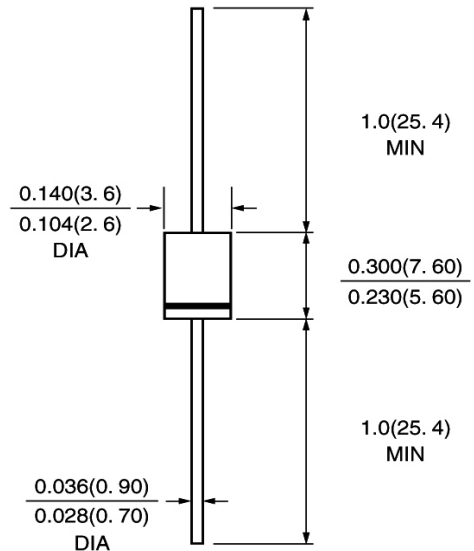
FEATURE

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: color band denotes cathode
 Mounting position: any

DO-15/DO-204AC



Dimensions in inches and (millimeters)

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

PARAMETER	SYMBOL	P6KE39A	units
Peak power dissipation with a 10/1000 μs waveform (1) (Fig. 1)	PPPM	600	W
Peak pulse current with a 10/1000 μs waveform (1)	IPPM	11.1	A
Breakdown Voltage at I _T =1mA	VBR	37.1min 41.0max	V
Maximum Reverse Leakage at V _{WM} =33.3V	IR	2.0	μ A
Maximum Clamping Voltage at IPPM	VC	53.9	V
Power dissipation on infinite heatsink at TL = 75°C (Fig. 5)	PD	5.0	W
Peak forward surge current, 8.3 ms single half sine-wave (2)	IFSM	100	A
Maximum instantaneous forward voltage at 50 A for unidirectional only	VF	3.5	V
Typical thermal resistance junction-to-lead	Rth(jl)	20	°C/W
Typical thermal resistance junction-to--ambient	Rth(ja)	75	°C/W
Storage and Operating Junction Temperature	Tstg,Tj	-55 to +175	°C

Note:
 (1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25°C per Fig. 2
 (2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 per minute maximum

RATINGS AND CHARACTERISTIC CURVES P6KE39A

FIG. 1 - PEAK PULSE POWER RATING CURVE

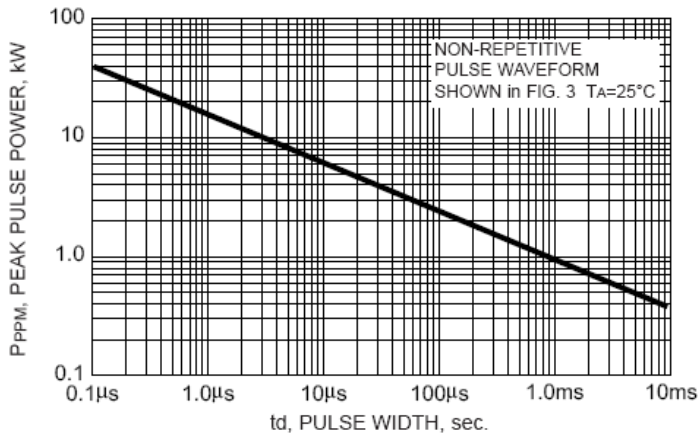


FIG. 2 - PULSE DERATING CURVE

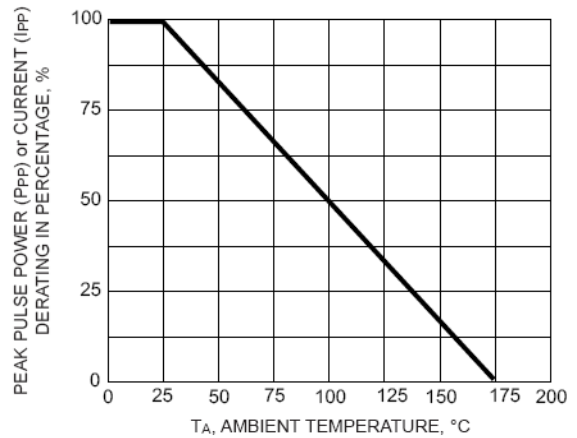


FIG. 3 - PULSE WAVEFORM

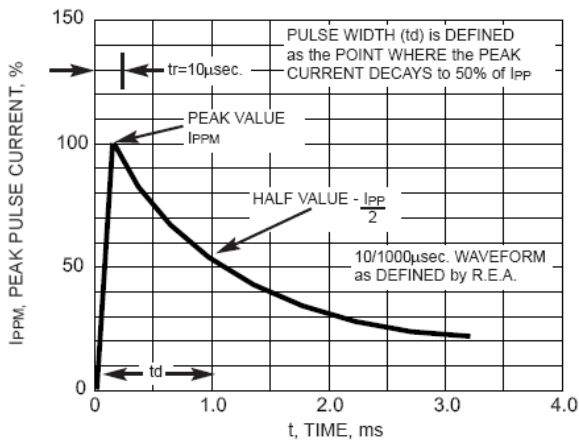


FIG. 4 - TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

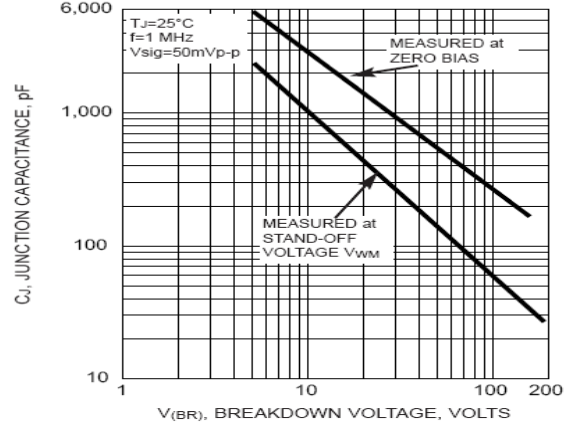


FIG. 5 - STEADY STATE POWER DERATING CURVE

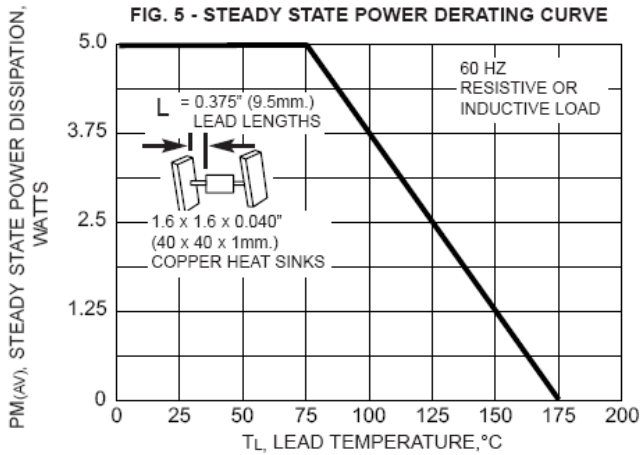


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNI-DIRECTIONAL

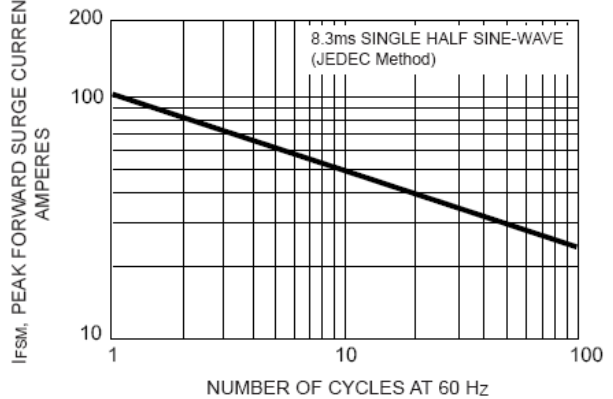


FIG. 7 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

