P6KE440A-E

Transient Voltage Suppressors

Pppm：600W IFSM：100A

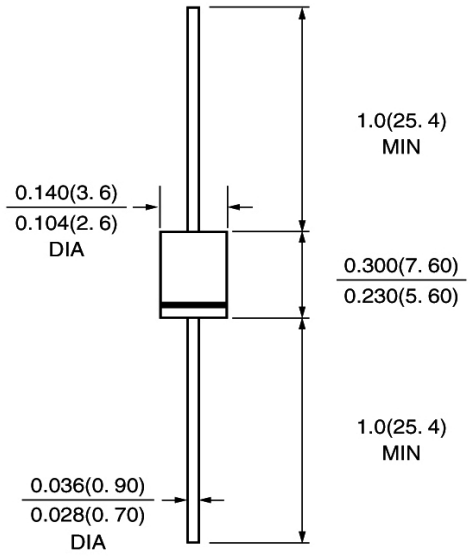
FEATURE

Low power loss
High surge capability
Glass passivated chip junction
High temperature soldering guaranteed
250℃/10sec/0.375″ lead length at 5 lbs tension
Halogen Free

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	P6KE440A-E	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	1.0	A
Breakdown Voltage at I_T=1mA	VBR	418min 462max	V
Maximum Reverse Leakage at V_{WM}=376V	IR	1.0	μA
Maximum Clamping Voltage at IPPM	VC	602	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	VF	5.0	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	℃

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 P6KE440A-E

FIG. 1 - PEAK PULSE POWER RATING CURVE

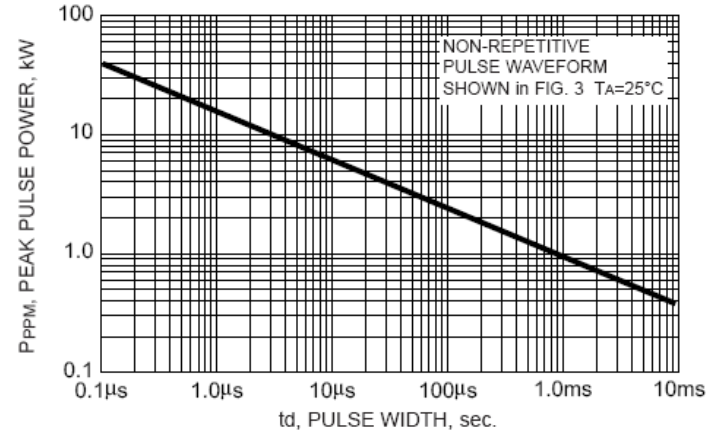


FIG. 2 - PULSE DERATING CURVE

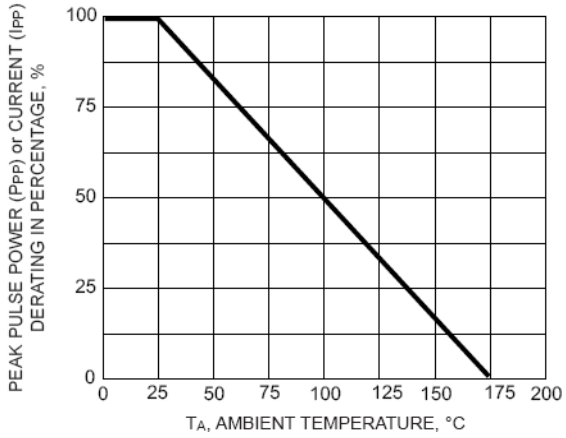


FIG. 3 - PULSE WAVEFORM

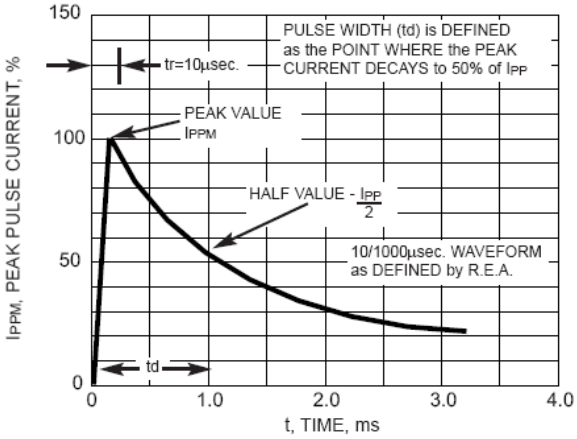


FIG. 4 - TYPICAL JUNCTION CAPACITANCE
UNIDIRECTIONAL

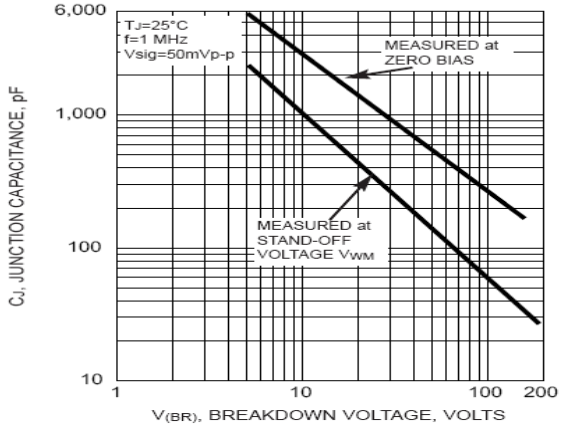


FIG. 5 - STEADY STATE POWER DERATING CURVE

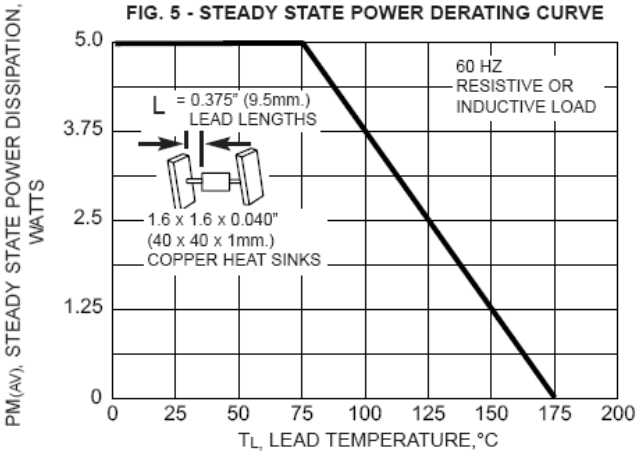


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT UNI-DIRECTIONAL

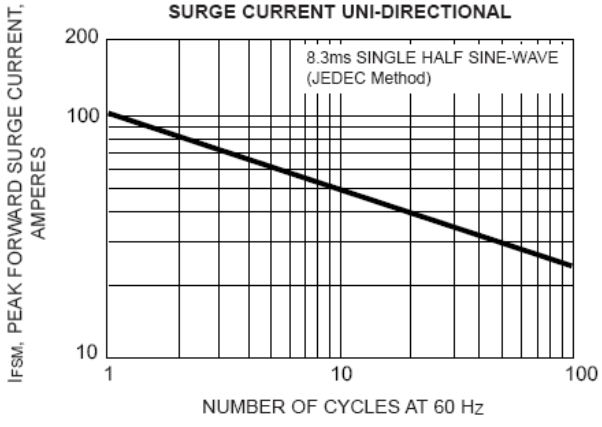


FIG. 7- TYPICAL REVERSE LEAKAGE CHARACTERISTICS