P6KE540A

Transient Voltage Suppressors

Pppm：600W IFSM：100A

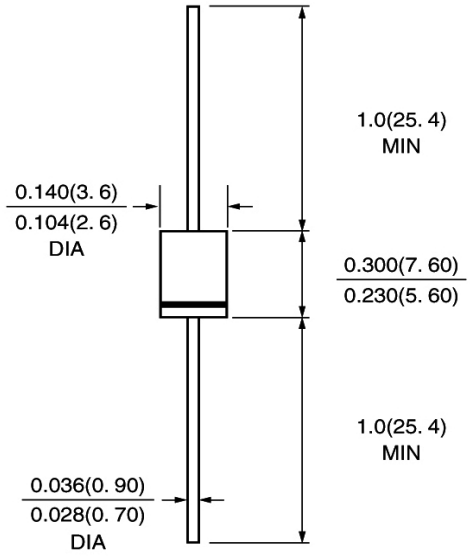
FEATURE

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

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 ℃ unless otherwise noted)

PARAMETER	SYMBOL	P6KE540A	units
Peak power dissipation with a 10/1000 μs waveform (1) (Fig. 1)	P_{PPM}	600	W
Peak pulse current with a 10/1000 μs waveform (1)	I_{PPM}	0.81	A
Breakdown Voltage at I_T=1mA	V_{BR}	513min 567max	V
Maximum Reverse Leakage at V_{WM}=459V	I_R	1.0	μ A
Maximum Clamping Voltage at IPPM	V_C	740	V
Power dissipation on infinite heatsink at TL = 75 °C (Fig. 5)	P_D	5.0	W
Peak forward surge current, 8.3 ms single half sine-wave (2)	I_{FSM}	100	A
Maximum instantaneous forward voltage at 50 A for unidirectional only	V_F	5.0	V
Typical thermal resistance junction-to-lead	Rth(jl)	20	℃/W
Typical thermal resistance junction-to--ambient	Rth(ja)	75	℃/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 ℃ 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 P6KE540A

FIG. 1 - PEAK PULSE POWER RATING CURVE

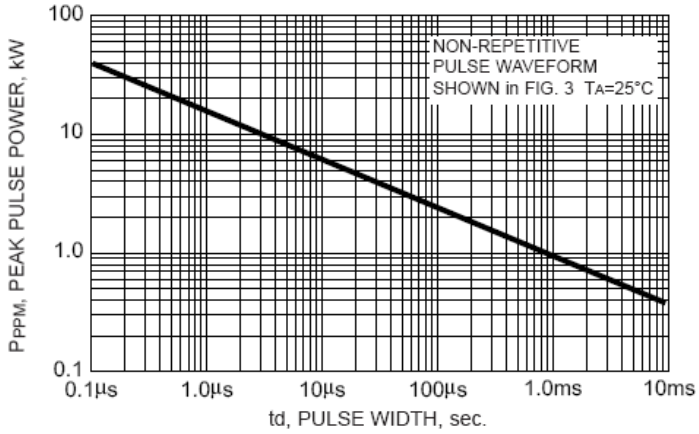


FIG. 2 - PULSE DERATING CURVE

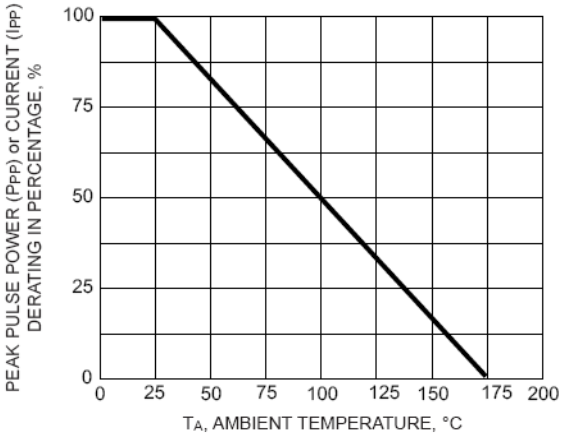


FIG. 3 - PULSE WAVEFORM

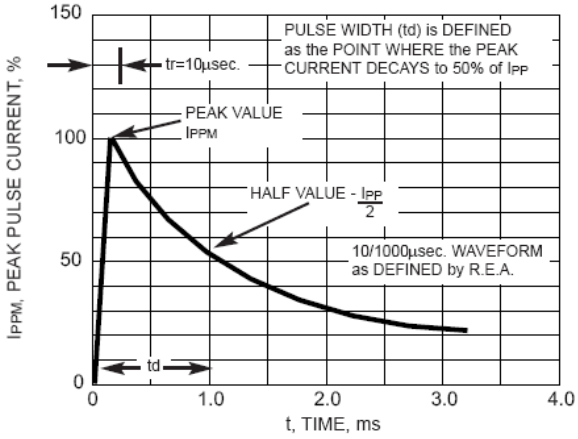


FIG. 4 - TYPICAL JUNCTION CAPACITANCE
UNIDIRECTIONAL

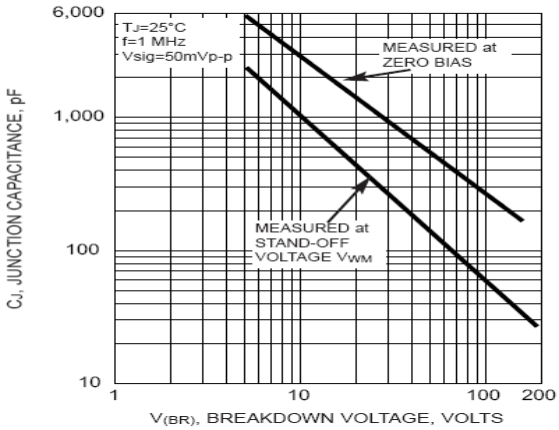


FIG. 5 - STEADY STATE POWER DERATING CURVE

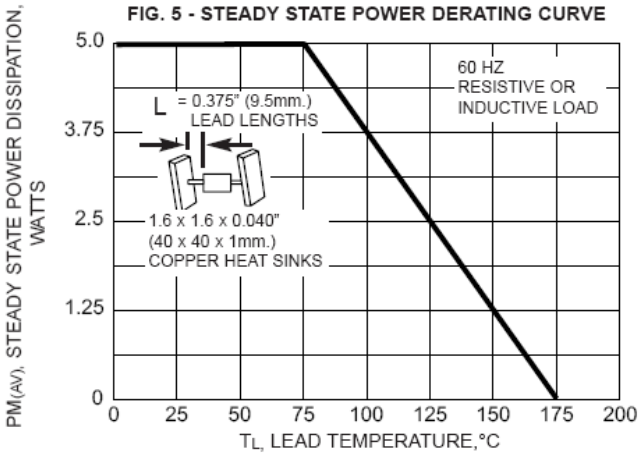


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT UNI-DIRECTIONAL

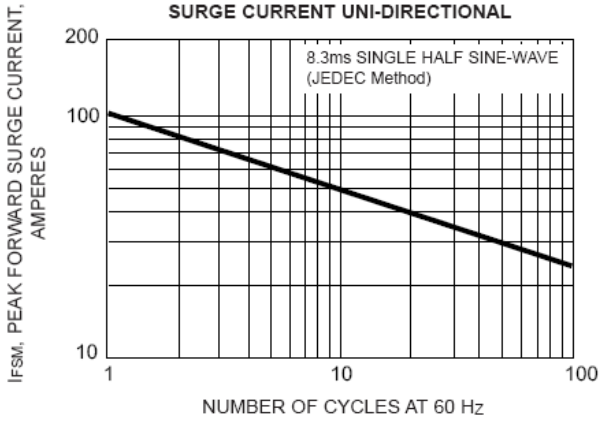


FIG. 7- TYPICAL REVERSE LEAKAGE CHARACTERISTICS