

5KP19A and 5KP46A

TRANSIENT VOLTAGE SUPPRESSOR

V_{RM} : 19 and 46 Volts

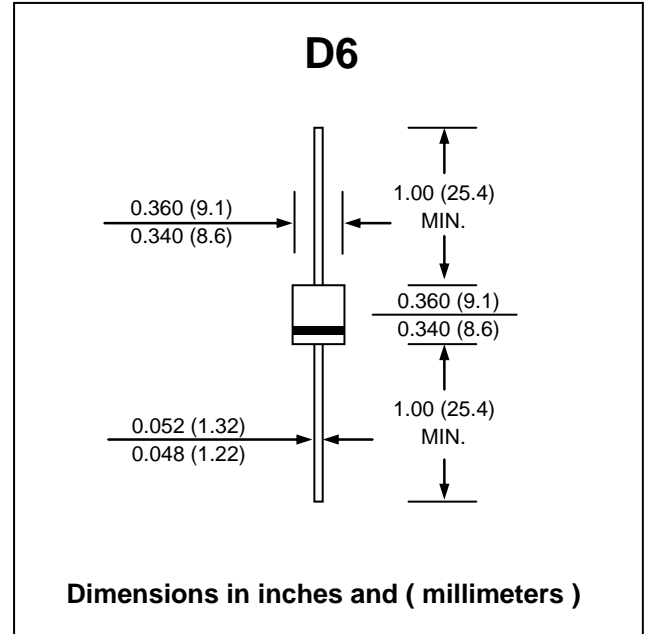
P_{PK} : 5000 Watts

FEATURES :

- * 5000W Peak Pulse Power
- * Excellent clamping capability
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : Void-free molded plastic body
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 2.1 grams



MAXIMUM RATINGS

Rating at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation at $t_p = 1\text{ms}$ (Note 1, Fig. 4)	P_{PK}	Minimum 5000	W
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 0.375", (9.5mm) (Note 2)	P_D	8.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 3)	I_{FSM}	400	A
Operating and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150	°C

Notes:

- (1) Non-repetitive Current pulse, per Fig. 5 and derated above $T_a = 25^\circ\text{C}$ per Fig. 1
- (2) Mounted on Copper Leaf area of 0.79 in^2 (20mm^2).
- (3) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

TYPE (Uni-directional)	Breakdown Voltage @ I_T (Note 1)		Reverse Stand off Voltage V_{RM}	Maximum Reverse Leakage @ V_{RM} I_R (μA)	Maximum Clamping Voltage @ I_{PP} V_C	Maximum Peak Pulse Current I_{PP}	Maximum Temperature Coefficient of V_{BR} (%/°C)	
	V_{BR} (V)	I_T						
	Min.	Max.	(mA)	(V)	(V)	(A)	(%/°C)	
5KP19A	21.4	23.8	5	19	5	30.5	164	0.09
5KP46A	51.3	56.7	5	46	5	75.0	67	0.09

RATING AND CHARACTERISTIC CURVES (5KP19A and 5KP46A)

FIG.1 - PULSE DERATING CURVE

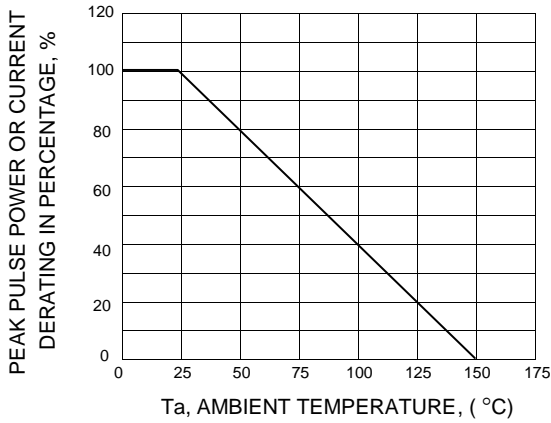


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

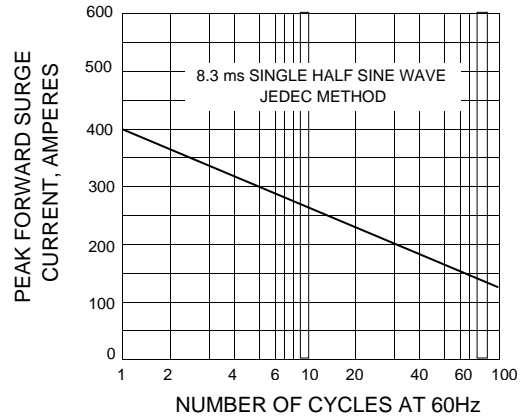


FIG.3 - STEADY STATE POWER DERATING

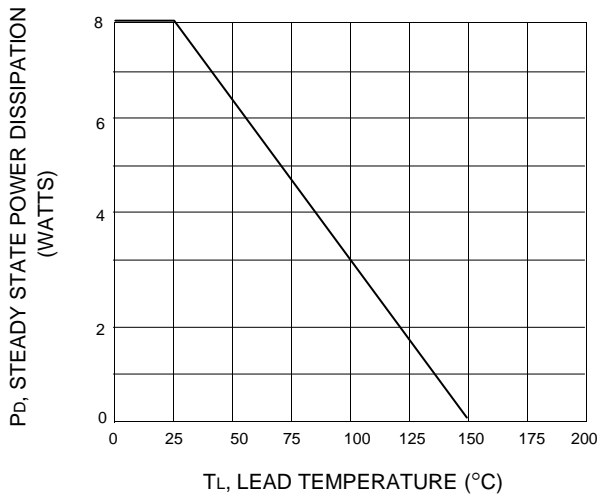


FIG.4 - PEAK PULSE POWER RATING CURVE

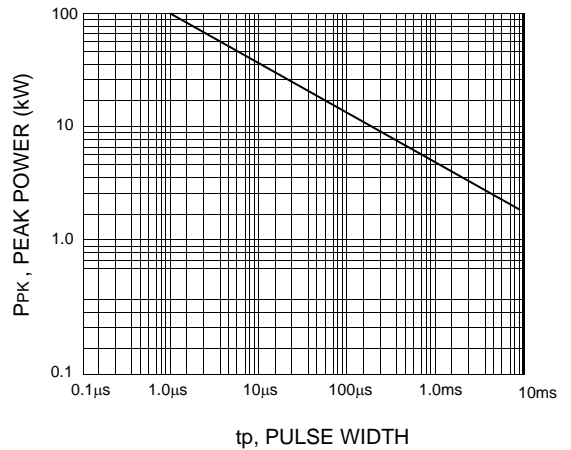


FIG.5 - PULSE WAVEFORM

