5KP6SCA - 5KP14SCA

BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

V_{RM} : 6 - 14 Volts
P_{PK} : 5000 Watts

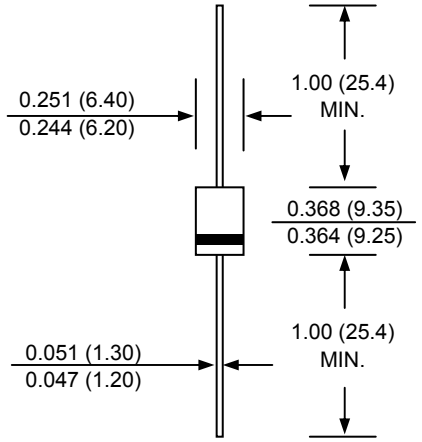
FEATURES :

* 5000W Peak Pulse Power
* Excellent clamping capability
* Low incremental surge resistance
* Fast response time : typically less then 1.0 ps from 0 volt to $V_{BR(min.)}$
* Pb / RoHS Free

MECHANICAL DATA

* Case : Void-free molded plastic body
* Epoxy : UL94V-0 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

DO-204AR



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (Rating at 25 °C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation at tp = 1ms (Note 1, Fig. 4)	P_{PK}	Minimum 5000	W
Steady State Power Dissipation at T_L = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P_D	8.0	W
Junction Temperature Range	T_J	120	°C
Storage Temperature Range	T_J, T_{STG}	- 55 to + 120	°C

Notes :

(1) Non-repetitive Current pulse, per Fig. 2 and derated above Ta = 25 °C per Fig. 1

(2) Mounted on Copper Leaf area of 0.79 in^2 (20mm^2).

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

Type	Breakdown Voltage @ I_T (Note 1)			Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current	Maximum Clamping Voltage @ I_{PPM}	Maximum Temperature Coefficient
	V_{BR} (V)		I_T	V_{RM}	I_R	I_{PPM}	V_C	of V_{BR}
	Min.	Max.	(mA)	(V)	(µA)	(A)	(V)	(%/°C)
5KP6SCA	6.67	7.37	50	6.0	10000	485	10.3	0.061
5KP14SCA	15.6	17.2	5.0	14	10	215	23.2	0.092

Note:

(1) V_{BR} measured after I_T applied for 300 µs., I_T = square wave pulse or equivalent.

RATING AND CHARACTERISTIC CURVES (5KP6SCA - 5KP14SCA)

FIG.1 - PULSE DERATING CURVE

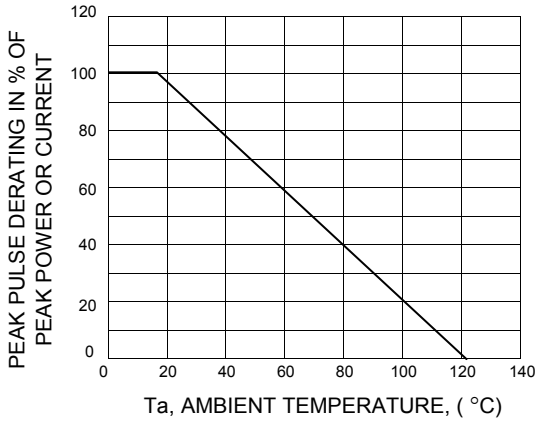


FIG.2 - PULSE WAVEFORM

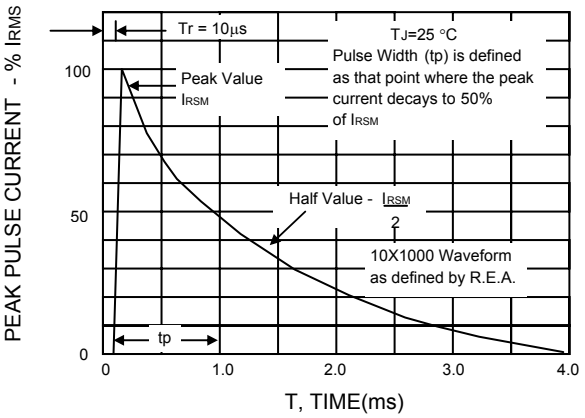


FIG.3 - STEADY STATE POWER DERATING

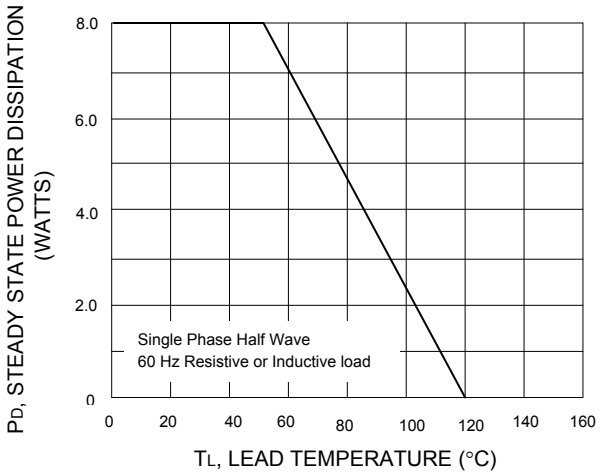


FIG.4 - PULSE RATING CURVE