

5KP6SCA - 5KP14SCA

BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

V_{RM} : 6 - 14 Volts

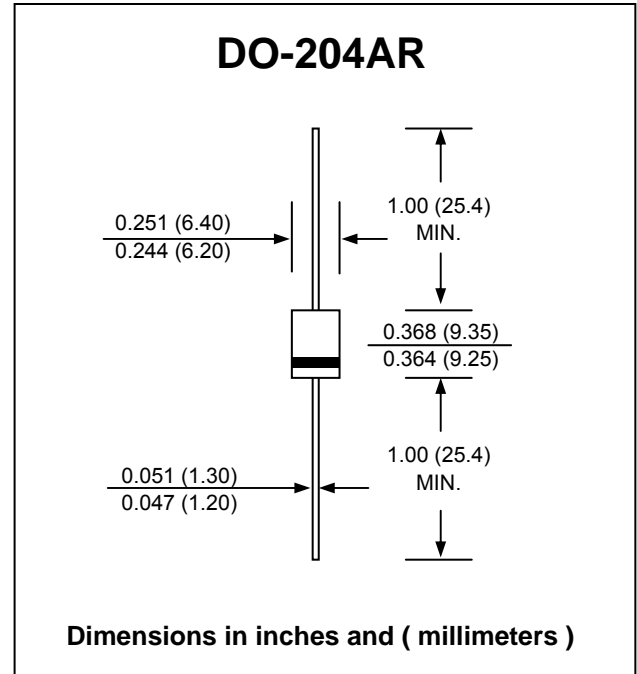
P_{PK} : 5000 Watts

FEATURES :

- * 5000W Peak Pulse Power
- * Excellent clamping capability
- * Low incremental surge resistance
- * Fast response time : typically less than 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



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 °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 in² (20mm²).

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

Type	Breakdown Voltage @ I _T (Note 1)		Reverse Stand off Voltage V _{RM} (V)	Maximum Reverse Leakage @ V _{RM} I _R (μA)	Maximum Peak Pulse Current I _{PPM} (A)	Maximum Clamping Voltage @ I _{PPM} V _C (V)	Maximum Temperature Coefficient of V _{BR} (%/°C)	
	V _{BR} (V)	I _T (mA)						
	Min.	Max.						
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

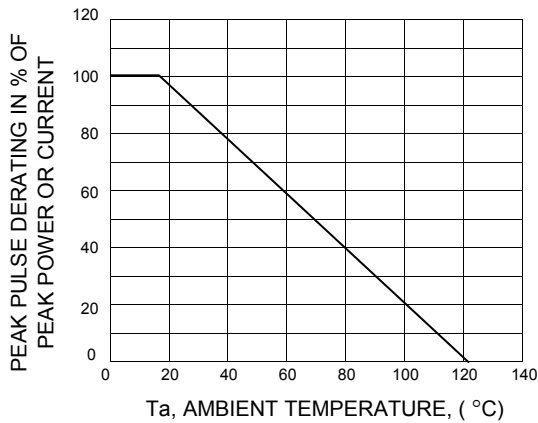


FIG.2 - PULSE WAVEFORM

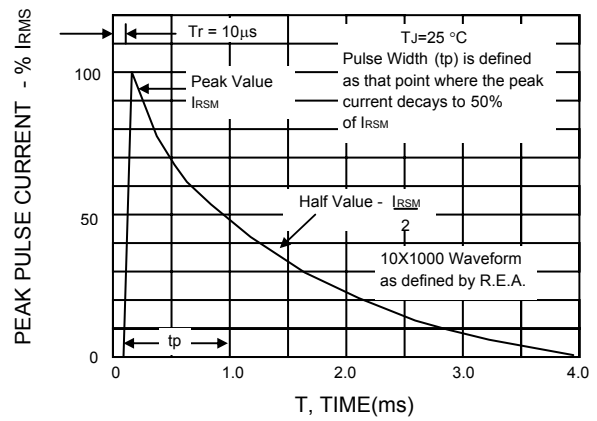


FIG.3 - STEADY STATE POWER DERATING

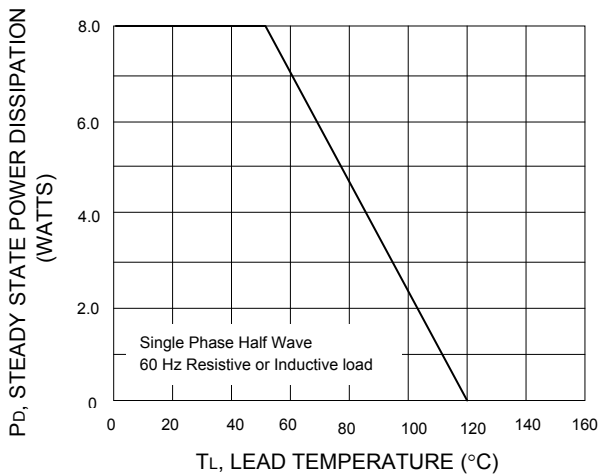


FIG.4 - PULSE RATING CURVE

