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1KP350C, 1KP350CA

BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

V_{BR} : 315 - 385 Volts
P_{PK} : 1000 Watts

FEATURES :

* 1000W surge capability at 1ms
* Excellent clamping capability
* Low zener impedance
* Fast response time : typically less
* then 1.0 ps from 0 volt to VBR(min.)
* Pb / RoHS Free

MECHANICAL DATA

* Case : DO-41 Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
* Mounting position : Any
* Weight : 0.339 gram

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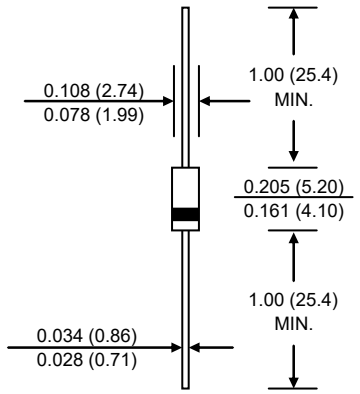

Dimensions in inches and (millimeters)

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

Rating	Symbol	Value	Unit
Peak Power Dissipation at Ta = 25 °C, Tp=1ms (Note1)	P_{PK}	Minimum 1000	W
Steady State Power Dissipation at T_L = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P_D	1.0	W
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175	°C

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

TYPE	Breakdown Voltage @ It (Note 3)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Co-efficient of V_{BR}
	V_{BR} (V)		It	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
	Min.	Max.	(mA)	(V)	(µA)	(A)	(V)	(% / °C)
1KP350C	315	385	1.0	284	5.0	1.98	504	0.108
1KP350CA	332	368	1.0	300	5.0	2.07	482	0.108

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 1.57 in^2(40mm^2).

(3) V_{BR} measured after It applied for 300 µs., It = square wave pulse or equivale

(4) "1" will be omitted in marking on the diode.

RATING AND CHARACTERISTIC CURVES (1KP350C and 1KP350CA)

FIG.1 - PULSE DERATING CURVE

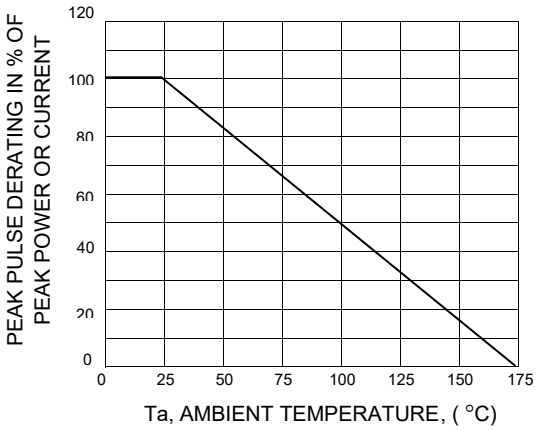

FIG.2 - PULSE WAVEFORM

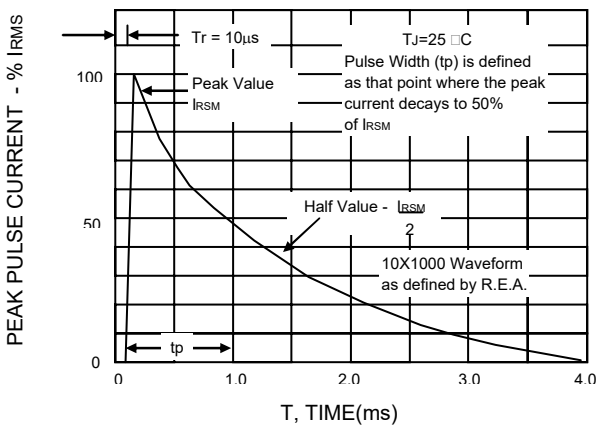

FIG.3 - STEADY STATE POWER DERATING

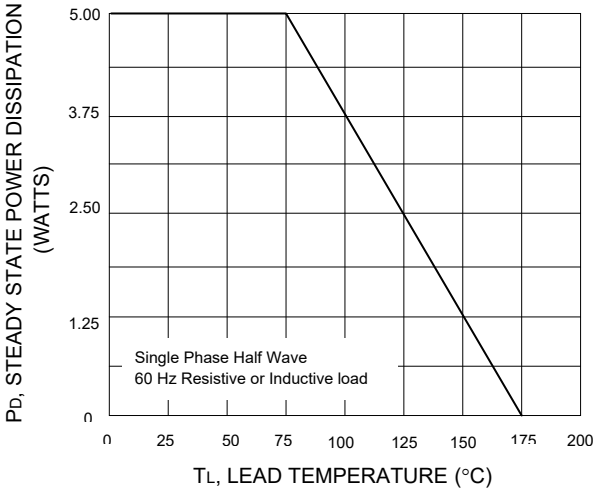

FIG.4 - PULSE RATING CURVE

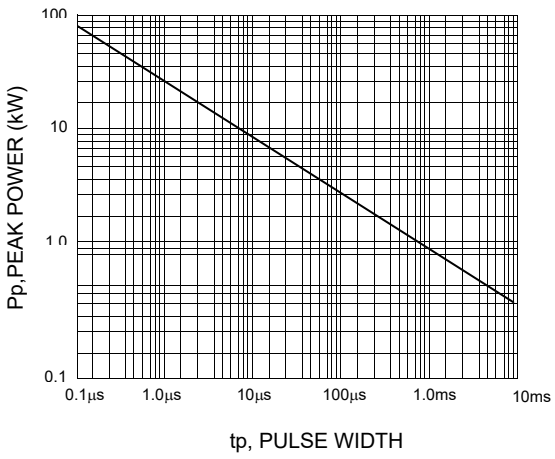

FIG. 5 - TYPICAL JUNCTION CAPACITANCE