

# RT100KP40A-400CA

## TRANSIENT VOLTAGE SUPPRESSORS

**V<sub>WM</sub> : 40 - 400 Volts**

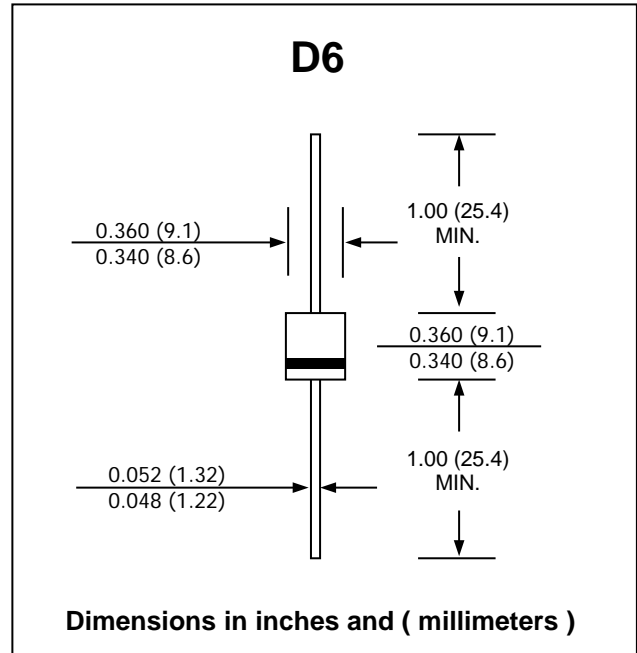
**P<sub>PK</sub> : 100,000 Watts**

### FEATURES :

- \* Glass passivated junction chip
- \* Excellent Clamping Capability
- \* Fast Response Time
- \* Low Leakage Current
- \* 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 except Bipolar.
- \* Mounting position : Any
- \* Weight : 2.1 grams



### MAXIMUM RATINGS (T<sub>a</sub> = 25 °C)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (6.4/69 μs, see Fig.4 )	P <sub>PK</sub>	100,000	W
Steady State Power Dissipation at T <sub>L</sub> =27.5 °C	P <sub>D</sub>	7.0	W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 150	°C



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

Part Number <sup>(1)</sup> (Uni-directional)	Reverse Stand Off Voltage	Breakdown Voltage @ I <sub>(BR)</sub>			Maximum Reverse Leakage @ V <sub>WM</sub>	Maximum Clamping Voltage @ I <sub>PP</sub> <sup>(2)</sup>	Maximum Peak Pulse <sup>(3)</sup> Current @ 6.4/69 μs	Max. Voltage Temperature Coefficient of V <sub>BR</sub>
	V <sub>WM</sub>	V <sub>BR</sub> (V)		I <sub>(BR)</sub>	I <sub>D</sub>	V <sub>C</sub>	I <sub>PP</sub>	(mV/°C)
	(V)	Min.	Max.	(mA)	(μA)	(V)	(A)	
RT100KP40A	40	44.4	49.1	20	1500	78.6	1273*	46
RT100KP43A	43	47.8	52.8	10	500	84.5	1184*	50
RT100KP45A	45	50.0	55.3	5	150	88.5	1130*	52
RT100KP48A	48	53.3	58.9	5	150	94.3	1061*	56
RT100KP51A	51	56.7	62.7	5	50	101.0	990*	60
RT100KP54A	54	60.0	66.3	5	25	106.0	943*	63
RT100KP58A	58	64.4	71.2	5	15	114	878	68
RT100KP60A	60	66.7	73.7	5	15	118.0	848	71
RT100KP64A	64	71.1	78.6	5	10	126	795	76
RT100KP70A	70	77.8	86.0	5	10	138	725	83
RT100KP75A	75	83.3	92.1	5	10	147	680	89
RT100KP78A	78	86.7	95.8	5	10	153	655	93
RT100KP85A	85	94.4	104	5	15	166	602	102
RT100KP90A	90	100	111	5	15	178	563	109
RT100KP100A	100	111	123	5	10	197	508	121
RT100KP110A	110	122	135	5	10	216	463	133
RT100KP120A	120	133	147	5	10	235	426	145
RT100KP130A	130	144	159	5	10	254	394	157
RT100KP150A	150	167	185	5	10	296	338	183
RT100KP160A	160	178	197	5	10	315	318	195
RT100KP170A	170	189	209	5	10	334	300	207
RT100KP180A	180	200	221	5	10	354	283	219
RT100KP200A	200	222	245	5	10	392	256	243
RT100KP220A	220	245	271	5	10	434	231	269
RT100KP250A	250	278	308	5	10	493	203	306
RT100KP260A	260	289	320	5	10	512	196	318
RT100KP280A	280	311	345	5	10	552	181	344
RT100KP300A	300	333	369	5	10	590	170	368
RT100KP350A	350	389	431	5	10	690	145	430
RT100KP400A	400	444	492	5	10	787	127	490

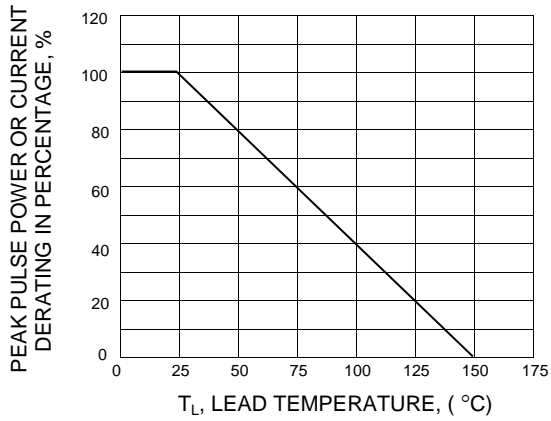
**Note:**

- (1) For bidirectional construction, indicate a CA suffix (instead of A) after the part number
- (2) Clamping voltage does not include any variable parasitic lead inductance effects observed during the 6.4 us rise time due to lead length.
- (3) The Maximum Peak Pulse Current Current (IPP) shown represents the performance capabilities by design.

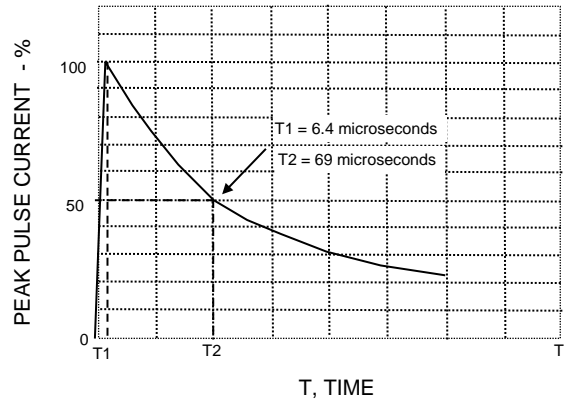
\*Surge test screening is only performed up to 900 A (test equipment limitations)

**RATING AND CHARACTERISTIC CURVES ( RT100KP40A-400CA )**

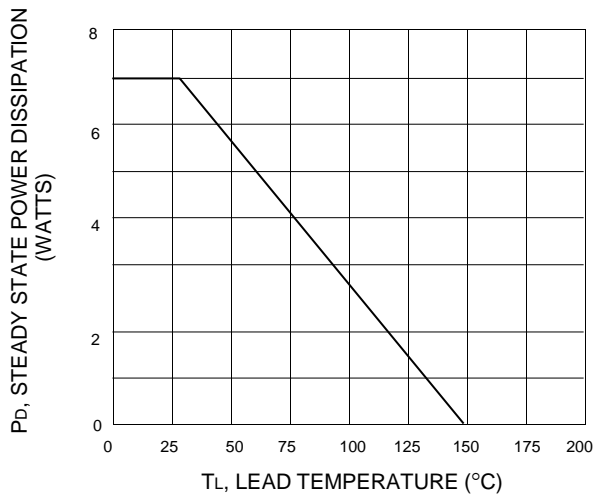
**FIG.1 - PULSE DERATING CURVE**



**FIG.2 - PULSE WAVEFORM**



**FIG.3 - STEADY STATE POWER DERATING**



**FIG.4 - PEAK PULSE POWER RATING CURVE**

