

RT100KP40A-400CA

TRANSIENT VOLTAGE SUPPRESSORS

V_{WM} : 40 - 400 Volts

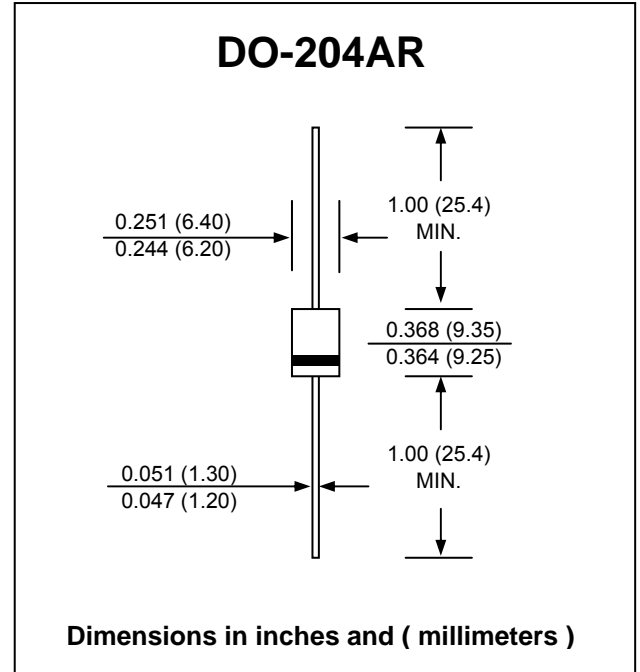
P_{PK} : 100,000 Watts

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_a = 25 °C)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (6.4/69 μs, see Fig.2)	P _{PK}	100,000	W
Steady State Power Dissipation at T _L =27.5 °C	P _D	7.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Uni-directional devices only)	I _{FSM}	250	A
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 150	°C

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

Part Number ⁽¹⁾ (Uni-directional)	Reverse Stand Off Voltage V_{WM} (V)	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM} I_D (μ A)	Maximum Clamping Voltage @ I_{PP} ⁽²⁾ V_C (V)	Maximum Peak Pulse ⁽³⁾ Current @ 6.4/69 μ s I_{PP} (A)	Max. Voltage Temperature Coefficient of V_{BR} (mV/°C)
		V_{BR} (V)		$I_{(BR)}$				
		Min.	Max.	(mA)				
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

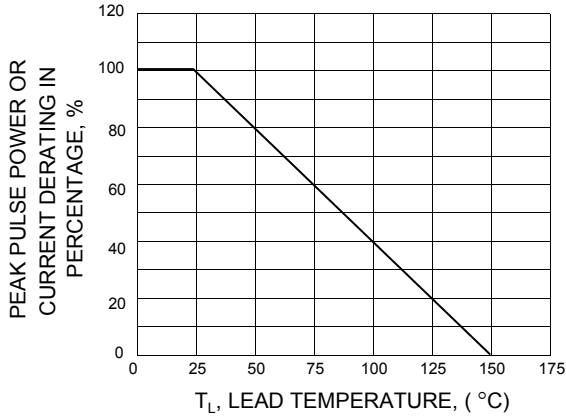


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

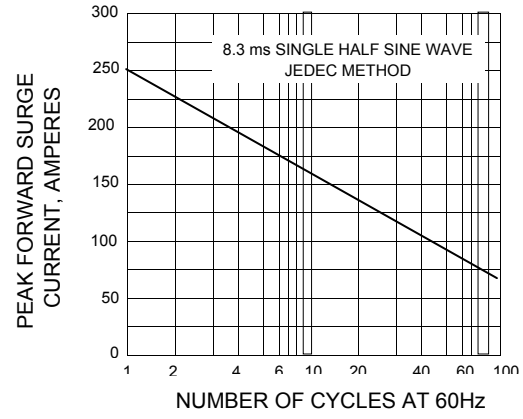


FIG.3 - STEADY STATE POWER DERATING

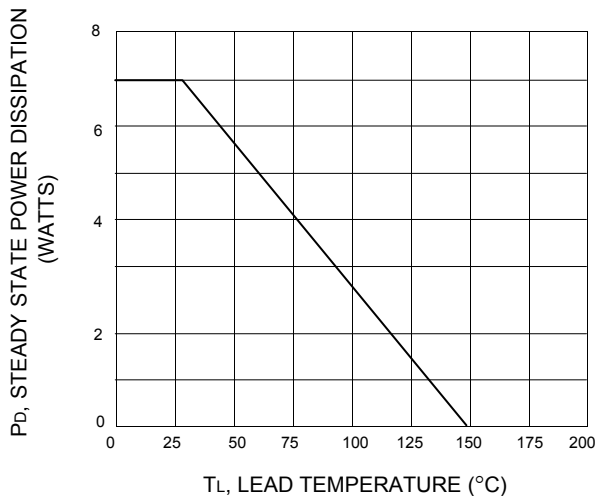


FIG.4 - PEAK PULSE POWER RATING CURVE

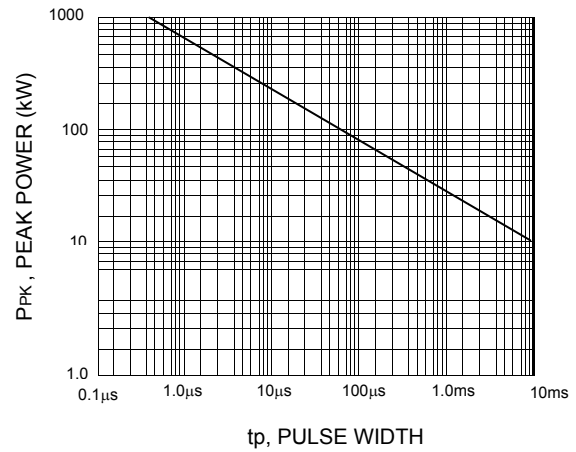


FIG.5 - PULSE WAVEFORM

