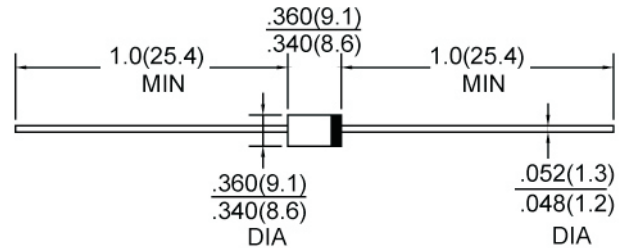


FEATURES

- Glass passivated chip junction
- Available in uni-directional & bi-directional
- 30000W surge capability at 10×100µs waveform, duty cycle: 0.01%
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time: Typically less than 1.0ps from 0 volts to BV min
- Typical I_R less 2µA above 12V
- High temperature soldering capability: 250°C/10 seconds/.0.495" (12.5mm) Lead length/5lbs. (2.3kg) tension

Voltage Range 28 to 288 Volts
30000 Watts Peak Power
8.0 Watts Steady State



R-6 (P600)

Dimensions in inches and (millimeters)

MECHANICAL DATA

- Molded plastic body (UL 94V-0 rated)
- Axial leads, solderable per MIL-STD 202, Method 208
- Color band denotes cathode, except for bipolar
- Weight: 2.6 gram

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbol	Value	Unit
Peak Power Dissipation at T _A =25°C, T _p =1ms (Note 1)	P _{ppm}	Minimum 30000	Watts
Steady State Power Dissipation at T _L =75°C Lead Lengths. ".0.495" (12.5mm) Note 2	P _{m (AV)}	8.0	Watts
Peak Forward Surge Current, 8.3 ms Single Half sine-wave Superimposed on Rated Load (JEDEC method) (Note 3)	I _{FSM}	400	Amps
Operating and Storage Temperature	T _J , T _{STG}	-55 to +175	°C

- NOTE:** 1. Non-repetitive current pulse, per Fig-1 and derated above T_A=25°C per Fig. 2 .
2. Mounted on Copper Pad Area of 1.6×1.6" (40×40mm) per Fig-5
3. 10ms Single Half Sine-Wave or Equivalent Square Wave, Duty Cycle=4 Pulses Per Minutes Maximum.

Devices for Bipolar Applications

1. Electrical Characteristics Apply in Both Directions.

■ RATING & CHARACTERISTIC CURVES

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

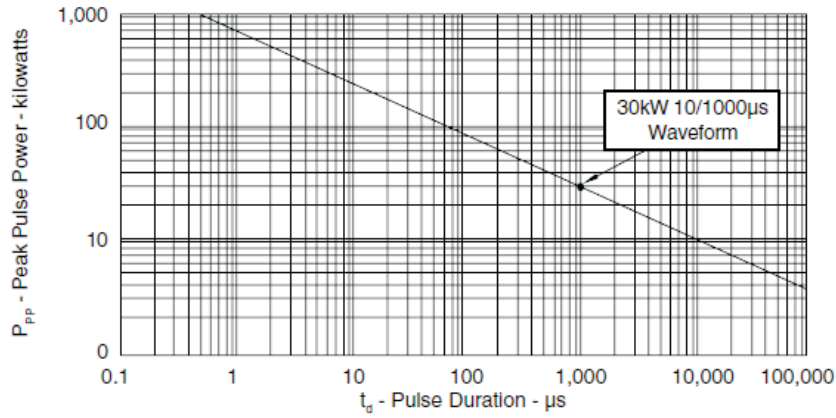


FIGURE 2
PULSE WAVE FORM

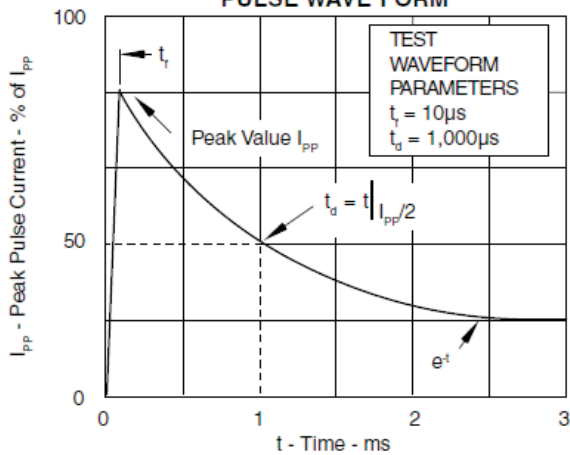
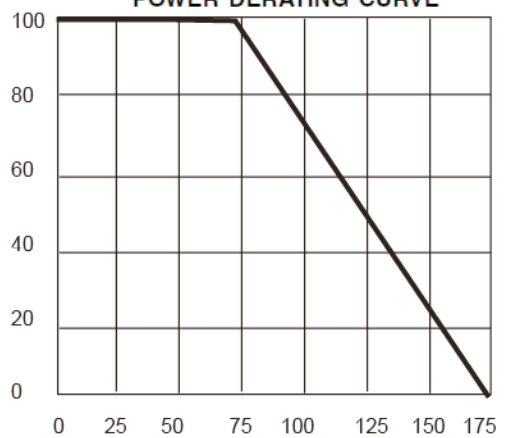


FIGURE 3
POWER DERATING CURVE



■ ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Part Number Unidirectional	Part Number (Bidirectional)	Breakdown Voltage		Test Current	Reverse Stand-Off Voltage	Reverse Leakage	Peak Pulse Current	Maximum Clamping Voltage
		V _(BR) @ I _T		I _T	V _{RWM}	I _d @ V _{RWM}	I _{ppm}	V _c @ I _{ppm}
		Min.	Max	mA	V	µA	A	V
30KPA28A	30KPA28CA	31.28	34.24	50	28	5000	606.0	50.0
30KPA30A	30KPA30CA	33.51	36.69	50	30	5000	548.9	55.2
30KPA33A	30KPA33CA	36.9	40.4	50	33	5000	517.9	58.5
30KPA36A	30KPA36CA	40.2	44.0	50	36	5000	490.3	61.8
30KPA39A	30KPA39CA	43.6	47.7	20	39	2000	450.9	67.2
30KPA42A	30KPA42CA	46.9	51.4	10	42	1000	420.8	72.0
30KPA43A	30KPA43CA	48.0	52.6	10	43	1000	415.1	73.0
30KPA45A	30KPA45CA	50.3	55.0	5	45	250	391.5	77.4
30KPA48A	30KPA48CA	53.6	58.7	5	48	150	371.3	81.6
30KPA51A	30KPA51CA	57.0	62.4	5	51	50	350.7	86.4
30KPA54A	30KPA54CA	60.3	66.0	5	54	20	331.5	91.4
30KPA58A	30KPA58CA	64.8	70.9	5	58	20	327.9	92.4
30KPA60A	30KPA60CA	67.0	73.4	5	60	15	297.1	102.0
30KPA64A	30KPA64CA	71.5	78.3	5	64	10	291.3	104.0
30KPA66A	30KPA66CA	73.7	80.7	5	66	10	283.2	107.0
30KPA70A	30KPA70CA	78.2	85.6	5	70	10	278.0	109.0
30KPA71A	30KPA71CA	79.3	86.8	5	71	10	271.7	111.5
30KPA72A	30KPA72CA	80.4	88.1	5	72	10	265.8	114.0
30KPA75A	30KPA75CA	83.8	91.7	5	75	10	253.8	119.4
30KPA78A	30KPA78CA	87.1	95.4	5	78	10	234.9	129.0
30KPA84A	30KPA84CA	93.8	102.7	5	84	10	217.7	139.2
30KPA90A	30KPA90CA	100.5	110.1	5	90	10	207.0	146.4
30KPA96A	30KPA96CA	107.2	117.4	5	96	10	194.2	156.0
30KPA102A	30KPA102CA	113.9	124.7	5	102	10	183.0	165.6
30KPA108A	30KPA108CA	120.6	132.1	5	108	10	172.9	175.2
30KPA120A	30KPA120CA	134.0	146.8	5	120	10	155.9	194.4
30KPA132A	30KPA132CA	147.4	161.4	5	132	10	142.3	213.0
30KPA144A	30KPA144CA	160.8	176.1	5	144	10	135.8	223.2
30KPA150A	30KPA150CA	167.6	183.5	5	150	10	129.8	233.4
30KPA156A	30KPA156CA	174.3	190.8	5	156	10	123.7	245.0
30KPA160A	30KPA160CA	178.7	195.7	5	160	10	120.0	252.6
30KPA168A	30KPA168CA	187.7	205.5	5	168	10	111.2	272.4
30KPA170A	30KPA170CA	189.9	207.9	5	170	10	110.2	275.0
30KPA180A	30KPA180CA	201.1	220.1	5	180	10	104.3	290.4
30KPA198A	30KPA198CA	221.2	242.2	5	198	10	94.7	319.8
30KPA216A	30KPA216CA	241.3	264.2	5	216	10	86.9	348.6
30KPA240A	30KPA240CA	268.1	293.5	5	240	10	78.3	387.0
30KPA258A	30KPA258CA	288.2	315.5	5	258	10	72.8	416.4
30KPA260A	30KPA260CA	290.4	318.0	5	260	10	72.8	416.0
30KPA270A	30KPA270CA	301.6	330.2	5	270	10	69.5	436.2
30KPA280A	30KPA280CA	312.8	342.4	5	280	10	65.3	464.0
30KPA288A	30KPA288CA	321.7	352.2	5	288	10	64.5	469.9

NOTES:

1. Surge current waveform per Fig-3 and derate per Fig-2.
2. For bipolar types having V_R of 10 volts and under, the I_R limit is doubled.
3. For bidirectional use C or CA suffix for 30KPA28 through 30KPA288.
4. All terms and symbols are consistent with ANSI/IEEE C62.35
5. A suffix is 5% tolerance, no suffix is 10% tolerance