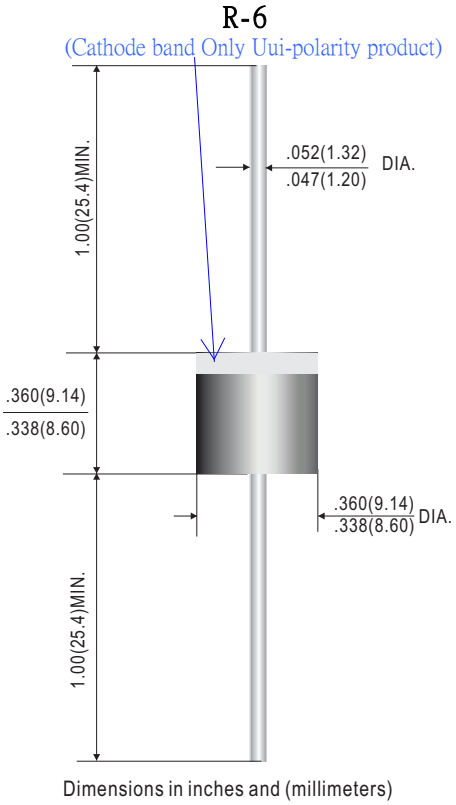
WILLAS

RoHS COMPLIANT

30000W AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSOR

R-6 PACKAGE

30KP Series



Dimensions in inches and (millimeters)

FEATURES

- ◎ Moisture Sensitivity Level 1
- ◎ RoHS compliant
- ◎ Typical maximum temperature coefficient $\triangle V_{BR}$=0.1%xV_{BR}@25°Cx$\triangle$T
- ◎ Plastic package
- ◎ Glass passivated junction
- ◎ 30000W Peak Pulse Power capability on 10/1000μs waveform
- ◎ Excellent clamping capability
- ◎ Repetition rate (duty cycle):0.05%
- ◎ Low incremental surge resistance
- ◎ Fast response time: typically less than 1.0ps from 0 Volts to BV
- ◎ High temperature soldering guaranteed: 260°C/40 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension
- ◎ Matte Tin Lead-free plated

MECHANICAL DATA

Case: Molded plastic over glass passivated junction
Terminal: Solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes positive end (cathode) except Bipolar
Mounting Position: Any
Weight: 0.07ounce, 2.3gram

DEVICES FOR BIPOLAR APPLICATION

For Bidirectional use C or CA Suffix for types 30KPA28 thru types 30KPA288 (e.g. 30KPA28C, 30KPA288CA)
Electrical characteristics apply in both directions

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

RATING °C	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000μs waveform	P_{PPM}	Minimum 30000	Watts
Peak Pulse Current of on 10/1000μs waveform	I_{PPM}	SEE TABLE 1	Amps
Steady State Power Dissipation at T_L = 75 , Lead lengths.375",(9.5mm)	$P_{M(AV)}$	8	Watts
Peak Forward Surge Current,1/20 second/25°C (JEDEC Method)	I_{FSM}	400	Amps
Operating junction and Storage Temperature Range	T_J , T_{STG}	-55 to + 175	°C

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Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating Curve

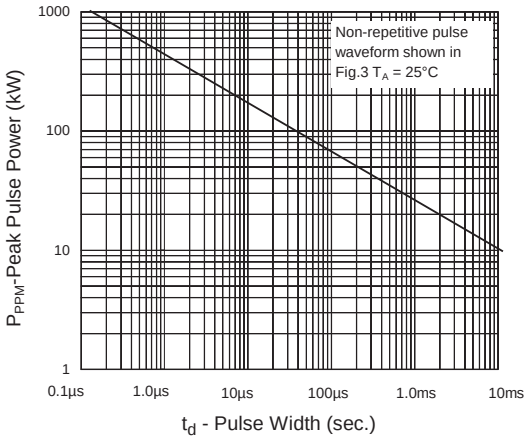


Fig.2 - Pulse Derating Curve

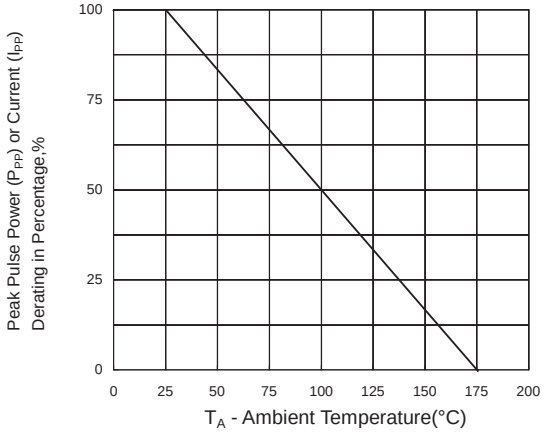


Fig.3 - Test Pulse Waveform

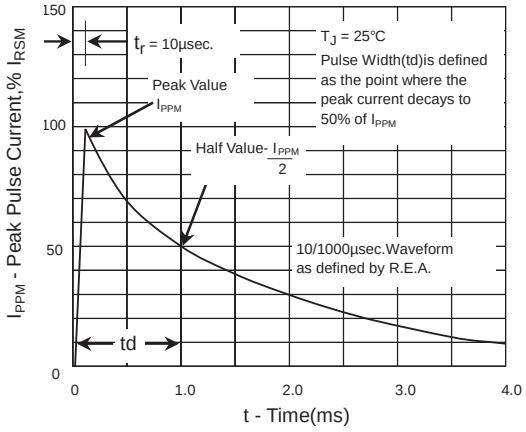


Fig. 4 - Typical Junction Capacitance

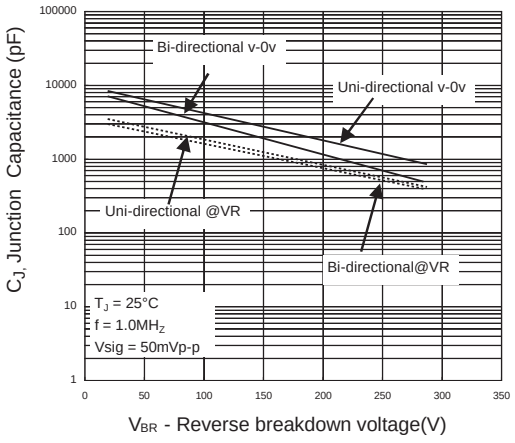


Fig. 5 - Steady State Power Derating Curve

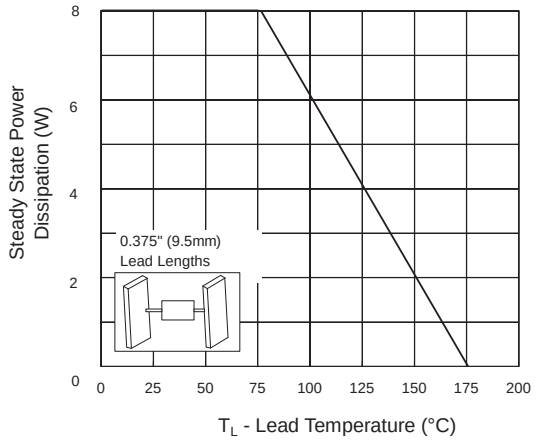
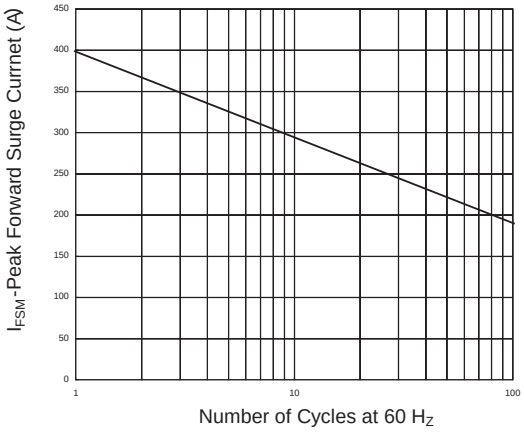


Fig.6 - Maximum Non-repetitive Forward Surge current



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RoHS COMPLIANT

30000W AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSOR

R-6 PACKAGE

30KP Series

Part No.		Reverse Stand-Off Voltage V_{RWM} (V)	Breakdown Voltage V_{BR} (V) Min @ I_T	Breakdown Voltage V_{BR} (V) Max @ I_T	Test Current I_T (mA)	Max Clamping Voltage V_C (V) @ I_{PP}	Peak Pulse Current I_{PP} (A)	Reverse Leakage I_R (μA) @ V_{RWM}
UNI-POLAR	BI-POLAR							
30KP28A	30KP28CA	28	31.28	34.24	50	50.0	606.0	5000
30KP30A	30KP30CA	30	33.51	36.69	50	55.2	548.9	5000
30KP33A	30KP33CA	33	36.90	40.40	50	58.5	517.9	5000
30KP36A	30KP36CA	36	40.20	44.00	50	61.8	490.3	5000
30KP39A	30KP39CA	39	43.60	47.70	20	67.2	450.9	2000
30KP42A	30KP42CA	42	46.90	51.40	10	72.0	420.8	1000
30KP43A	30KP43CA	43	48.00	52.60	10	73.0	415.1	1000
30KP45A	30KP45CA	45	50.30	55.00	5.0	77.4	391.5	250
30KP48A	30KP48CA	48	53.60	58.70	5.0	81.6	371.3	150
30KP51A	30KP51CA	51	57.00	62.40	5.0	86.4	350.7	50
30KP54A	30KP54CA	54	60.30	66.00	5.0	91.4	331.5	20
30KP58A	30KP58CA	58	64.80	70.90	5.0	92.4	327.9	20
30KP60A	30KP60CA	60	67.00	73.40	5.0	102.0	297.1	15
30KP64A	30KP64CA	64	71.50	78.30	5.0	104.0	291.3	10
30KP66A	30KP66CA	66	73.70	80.70	5.0	107.0	283.2	2
30KP70A	30KP70CA	70	78.20	85.60	5.0	109.0	278.0	2
30KP71A	30KP71CA	71	79.30	86.80	5.0	111.5	271.7	2
30KP72A	30KP72CA	72	80.40	88.10	5.0	114.0	265.8	2
30KP75A	30KP75CA	75	83.80	91.70	5.0	119.4	253.8	2
30KP78A	30KP78CA	78	87.10	95.40	5.0	129.0	234.9	2
30KP84A	30KP84CA	84	93.80	102.70	5.0	139.2	217.7	2
30KP90A	30KP90CA	90	100.50	110.10	5.0	146.4	207.0	2
30KP96A	30KP96CA	96	107.20	117.40	5.0	156.0	194.2	2
30KP102A	30KP102CA	102	113.90	124.70	5.0	165.6	183.0	2
30KP108A	30KP108CA	108	120.60	132.10	5.0	175.2	172.9	2
30KP120A	30KP120CA	120	134.00	146.80	5.0	194.4	155.9	2
30KP132A	30KP132CA	132	147.40	161.40	5.0	213.0	142.3	2
30KP144A	30KP144CA	144	160.80	176.10	5.0	223.2	135.8	2
30KP150A	30KP150CA	150	167.60	183.50	5.0	233.4	129.8	2
30KP156A	30KP156CA	156	174.30	190.80	5.0	245.0	123.7	2
30KP160A	30KP160CA	160	178.70	195.70	5.0	252.6	120.0	2
30KP168A	30KP168CA	168	187.70	205.50	5.0	272.4	111.2	2
30KP170A	30KP170CA	170	189.90	207.90	5.0	275.0	110.2	2
30KP180A	30KP180CA	180	201.10	220.10	5.0	290.4	104.3	2
30KP198A	30KP198CA	198	221.20	242.20	5.0	319.8	94.7	2
30KP216A	30KP216CA	216	241.30	264.20	5.0	348.6	86.9	2
30KP240A	30KP240CA	240	268.10	293.50	5.0	387.0	78.3	2
30KP258A	30KP258CA	258	288.20	315.50	5.0	416.4	72.8	2
30KP260A	30KP260CA	260	290.40	318.00	5.0	416.0	72.8	2

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UNI-POLAR	BI-POLAR							
30KP270A	30KP270CA	270	301.60	330.20	5.0	436.2	69.5	2
30KP280A	30KP280CA	280	312.80	342.40	5.0	464.0	65.3	2
30KP288A	30KP288CA	288	321.70	352.20	5.0	469.9	64.5	2

Note:

1. Add suffix "CA" after Part number to specify Bi-directional devices.

2. For Bi-directional devices having VRWM of 10 voltages and under, the IR limit is doubled.

Ordering Information:

Device PN	Packing
Part Number -F(1)G(2)-WS	Tape & Ammo Packing:400pcs/box
Part Number -T(1)G(2)-WS	Tape & Reel Packing :500pcs/Reel
Part Number -B(1)G(2)-WS	Bulk Packing: 200pcs/Box

Note: 1. Packing code, F: Tape & Ammo Packing; T: Tape & Reel Packing; B: Bulk Packing

2. RoHS product for packing code suffix ”G”, Halogen free product for packing code suffix "H" .