

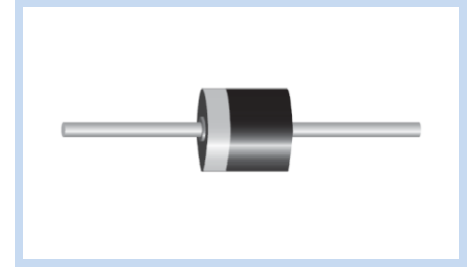
# Transient Voltage Suppressors 30000W P600

30KPA-E Series

MERITEK

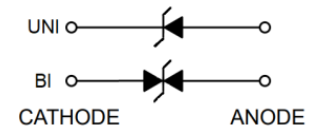
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{kV}$  (Air),  $\pm 30\text{kV}$  (Contact)
- 30000W Peak Pulse Power (10/1000 $\mu\text{s}$ ), Repetitive Rate: 0.05%
- 28V to 288V Standoff Voltage
- Excellent Clamping Capability
- Glass Passivated Junction
- UL Flammability Classification Rating 94V-0
- UL Safety Approved Certification No: E223045



## MECHANICAL DATA

- Case: P600/R-6, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End Except Bipolar



## MAXIMUM RATINGS

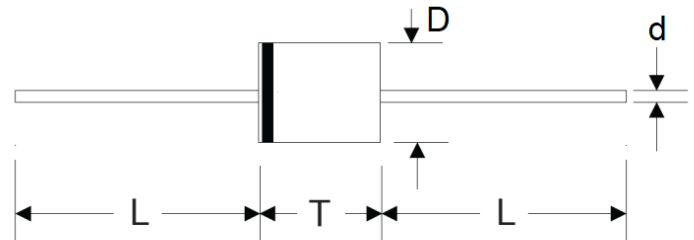
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 $\mu\text{s}$ waveform	$P_{PPM}$	Minimum 30000	W
Peak Pulse Current on 10/1000 $\mu\text{s}$ waveform	$I_{PPM}$	See Table	A
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$	$P_D$	8.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$	400	A
Operating Junction And Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	8	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40	$^\circ\text{C/W}$

Note:

1.  $T_A = 25^\circ\text{C}$  ambient temperature unless otherwise specified.
2. Non-repetitive current pulse, and derated above  $T_A = 25^\circ\text{C}$ .
3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minute maximum.

## DIMENSIONS

R6/P600	Min(mm)	Max(mm)
D	8.60	9.10
T	8.60	9.10
L	25.4	-
d	1.19	1.32



### ELECTRICAL CHARACTERISTICS

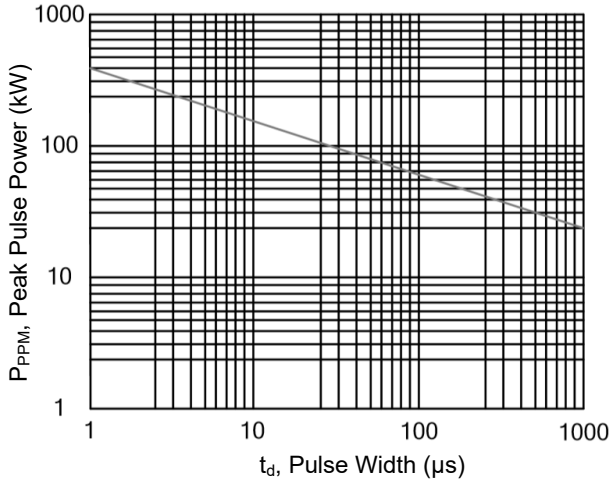
Part Number		Working Reverse Voltage	Reverse Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max Clamping Voltage	Reverse Surge Current
Uni-Polar	Bi-Polar	V <sub>RWM</sub> (V)	V <sub>BR</sub> Min(V)	V <sub>BR</sub> Max(V)	I <sub>T</sub> (mA)	I <sub>R</sub> (uA) @ V <sub>RWM</sub>	V <sub>C</sub> (V) @ I <sub>PP</sub>	I <sub>PP</sub> (A) Max
30KPA28A-E	30KPA28CA-E	28	31.28	34.57	50	5000	50.0	606.0
30KPA30A-E	30KPA30CA-E	30	33.51	37.04	50	5000	55.2	548.9
30KPA33A-E	30KPA33CA-E	33	36.90	40.78	50	5000	58.5	517.9
30KPA36A-E	30KPA36CA-E	36	40.20	44.43	50	5000	61.8	490.3
30KPA39A-E	30KPA39CA-E	39	43.60	48.19	20	2000	67.2	450.9
30KPA42A-E	30KPA42CA-E	42	46.90	51.84	10	1000	72.0	420.8
30KPA43A-E	30KPA43CA-E	43	48.00	53.05	10	1000	73.0	415.1
30KPA45A-E	30KPA45CA-E	45	50.30	55.59	5	250	77.4	391.5
30KPA48A-E	30KPA48CA-E	48	53.60	59.24	5	150	81.6	371.3
30KPA51A-E	30KPA51CA-E	51	57.00	63.00	5	50	86.4	350.7
30KPA54A-E	30KPA54CA-E	54	60.30	66.65	5	20	91.4	331.5
30KPA58A-E	30KPA58CA-E	58	64.80	71.62	5	20	92.4	327.9
30KPA60A-E	30KPA60CA-E	60	67.00	74.05	5	15	102.0	297.1
30KPA64A-E	30KPA64CA-E	64	71.50	79.03	5	10	104.0	291.3
30KPA66A-E	30KPA66CA-E	66	73.70	81.46	5	2	107.0	283.2
30KPA70A-E	30KPA70CA-E	70	78.20	86.43	5	2	109.0	278.0
30KPA71A-E	30KPA71CA-E	71	79.30	87.65	5	2	111.5	271.7
30KPA72A-E	30KPA72CA-E	72	80.40	88.86	5	2	114.0	265.8
30KPA75A-E	30KPA75CA-E	75	83.80	92.62	5	2	119.4	253.8
30KPA78A-E	30KPA78CA-E	78	87.10	96.27	5	2	129.0	234.9
30KPA84A-E	30KPA84CA-E	84	93.80	103.67	5	2	139.2	217.7
30KPA90A-E	30KPA90CA-E	90	100.5	111.08	5	2	146.4	207.0
30KPA96A-E	30KPA96CA-E	96	107.2	118.48	5	2	156.0	194.2
30KPA102A-E	30KPA102CA-E	102	113.9	125.89	5	2	165.6	183.0
30KPA108A-E	30KPA108CA-E	108	120.6	133.29	5	2	175.2	172.9
30KPA120A-E	30KPA120CA-E	120	134.0	148.11	5	2	194.4	155.9
30KPA132A-E	30KPA132CA-E	132	147.4	162.92	5	2	213.0	142.3
30KPA144A-E	30KPA144CA-E	144	160.8	177.73	5	2	223.2	135.8
30KPA150A-E	30KPA150CA-E	150	167.6	185.24	5	2	233.4	129.8
30KPA156A-E	30KPA156CA-E	156	174.3	192.65	5	2	245.0	123.7
30KPA160A-E	30KPA160CA-E	160	178.7	197.51	5	2	252.6	120.0
30KPA168A-E	30KPA168CA-E	168	187.7	207.46	5	2	272.4	111.2
30KPA170A-E	30KPA170CA-E	170	189.9	209.89	5	2	275.0	110.2
30KPA180A-E	30KPA180CA-E	180	201.1	222.27	5	2	290.4	104.3
30KPA198A-E	30KPA198CA-E	198	221.2	244.48	5	2	319.8	94.7
30KPA216A-E	30KPA216CA-E	216	241.3	266.70	5	2	348.6	86.9
30KPA240A-E	30KPA240CA-E	240	268.1	296.32	5	2	387.0	78.3
30KPA258A-E	30KPA258CA-E	258	288.2	318.54	5	2	416.4	72.8
30KPA260A-E	30KPA260CA-E	260	290.4	320.97	5	2	416.0	72.8
30KPA270A-E	30KPA270CA-E	270	301.6	333.35	5	2	436.2	69.5
30KPA280A-E	30KPA280CA-E	280	312.8	345.73	5	2	464.0	65.3
30KPA288A-E	30KPA288CA-E	288	321.7	355.56	5	2	469.9	64.5

Note:

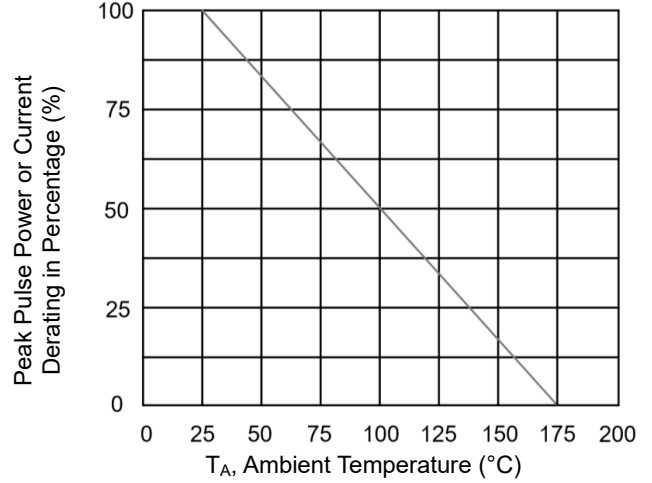
1. T<sub>A</sub> = 25°C ambient temperature unless otherwise specified.
2. For Bidirectional type having V<sub>RWM</sub> of 60V and less, the I<sub>R</sub> limit is double

### CHARACTERISTIC CURVES

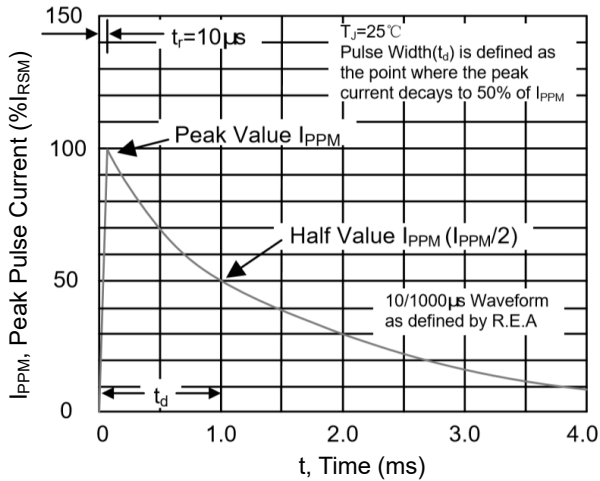
Peak Pulse Power Rating Curve



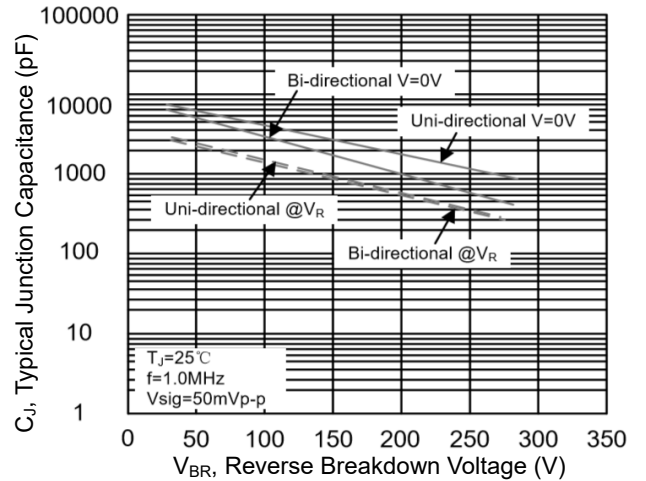
Pulse Derating Curve



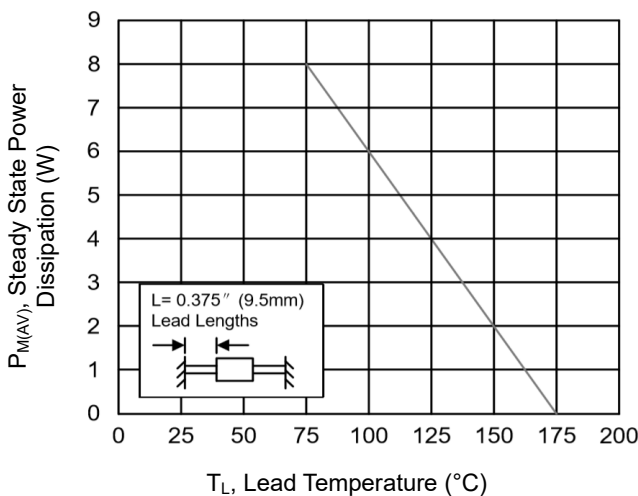
Pulse Waveform



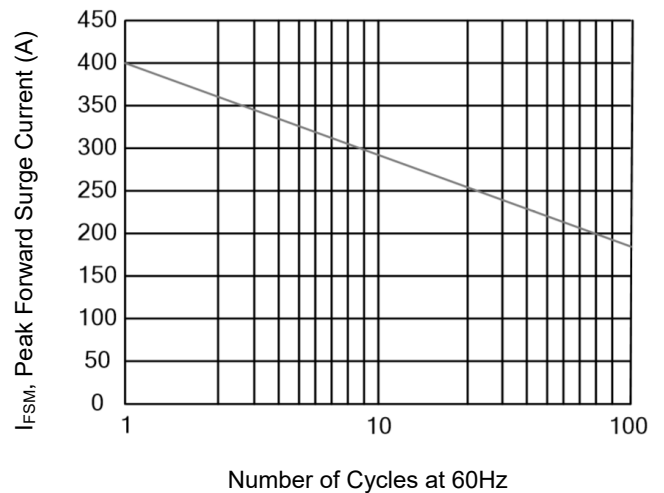
Typical Junction Capacitance



Steady State Power Dissipation Derating Curve



Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



\*Specifications subject to change without notice.