

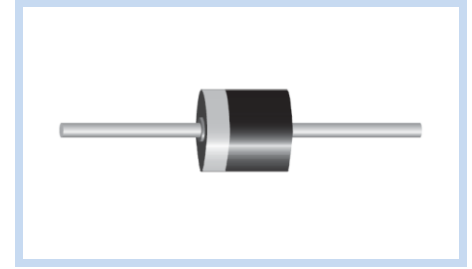
# Transient Voltage Suppressors 20000W P600

20KPA-E Series

MERITEK

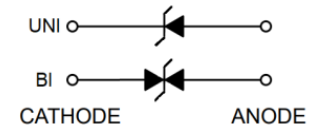
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{kV}$  (Air),  $\pm 30\text{kV}$  (Contact)
- 20000W Peak Pulse Power (10/1000 $\mu\text{s}$ ), Repetitive Rate : 0.05%
- 20V to 300V 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

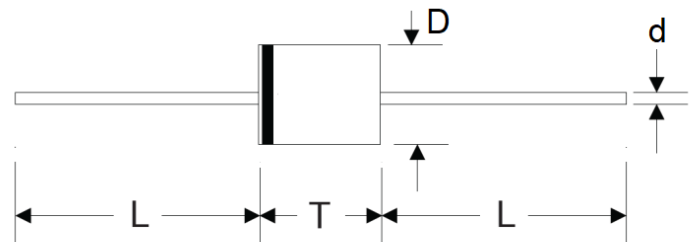
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 $\mu\text{s}$ waveform	$P_{PPM}$	Minimum 20000	W
Peak Pulse Current on 10/1000 $\mu\text{s}$ waveform	$I_{PPM}$	See Table	A
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$	$P_D$	8.0	W
Peak Forward Surge Current, 8.3ms Single 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



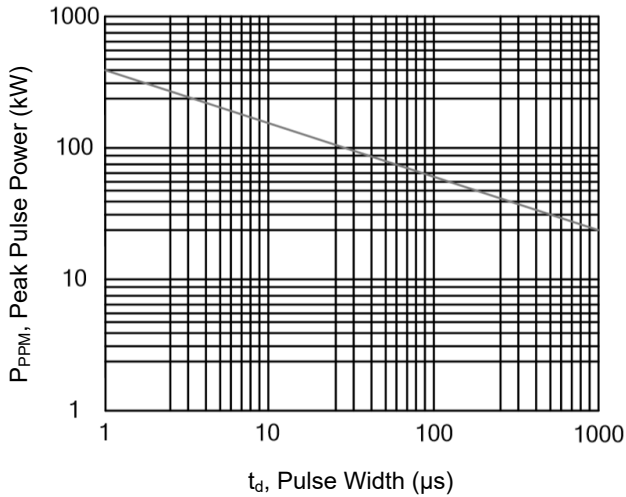
### ELECTRICAL CHARACTERISTICS

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)				
20KPA20A-E	20KPA20CA-E	20	22.34	24.94	50	5000	36.8	548.9
20KPA24A-E	20KPA24CA-E	24	26.81	29.93	50	5000	41.2	490.3
20KPA26A-E	20KPA26CA-E	26	29.04	32.42	50	2000	44.7	451.9
20KPA28A-E	20KPA28CA-E	28	31.28	34.92	50	1000	48.0	420.8
20KPA30A-E	20KPA30CA-E	30	33.51	37.41	5	250	51.5	392.2
20KPA32A-E	20KPA32CA-E	32	35.74	39.90	5	150	54.3	372.0
20KPA34A-E	20KPA34CA-E	34	38.0	42.42	5	50	57.5	351.3
20KPA36A-E	20KPA36CA-E	36	40.2	44.88	5	20	61.5	328.5
20KPA40A-E	20KPA40CA-E	40	44.7	49.90	5	15	67.8	297.9
20KPA44A-E	20KPA44CA-E	44	49.1	54.81	5	2	72.7	277.9
20KPA48A-E	20KPA48CA-E	48	53.6	59.83	5	2	79.4	254.4
20KPA52A-E	20KPA52CA-E	52	58.1	64.86	5	2	85.8	235.4
20KPA56A-E	20KPA56CA-E	56	62.6	69.88	5	2	92.6	218.1
20KPA60A-E	20KPA60CA-E	60	67.0	74.79	5	2	97.6	207.0
20KPA64A-E	20KPA64CA-E	64	71.5	79.82	5	2	104	194.2
20KPA68A-E	20KPA68CA-E	68	76.0	84.84	5	2	110	183.6
20KPA72A-E	20KPA72CA-E	72	80.4	89.75	5	2	116	174.1
20KPA80A-E	20KPA80CA-E	80	89.4	99.80	5	2	130	155.4
20KPA88A-E	20KPA88CA-E	88	98.3	109.73	5	2	142	142.3
20KPA96A-E	20KPA96CA-E	96	107.2	119.67	5	2	155	130.3
20KPA104A-E	20KPA104CA-E	104	116.2	129.72	5	2	168	120.2
20KPA112A-E	20KPA112CA-E	112	125.1	139.65	5	2	182	111.0
20KPA120A-E	20KPA120CA-E	120	134.0	149.59	5	2	194	104.1
20KPA132A-E	20KPA132CA-E	132	147.4	164.54	5	2	213	94.8
20KPA144A-E	20KPA144CA-E	144	160.8	179.50	5	2	232	87.1
20KPA160A-E	20KPA160CA-E	160	178.7	199.49	5	2	258	78.3
20KPA172A-E	20KPA172CA-E	172	192.1	214.44	5	2	277	72.9
20KPA180A-E	20KPA180CA-E	180	201.1	224.49	5	2	291	69.4
20KPA192A-E	20KPA192CA-E	192	214.5	239.45	5	2	309	65.4
20KPA204A-E	20KPA204CA-E	204	227.9	254.41	5	2	329	61.4
20KPA216A-E	20KPA216CA-E	216	241.3	269.37	5	2	348	58.0
20KPA232A-E	20KPA232CA-E	232	259.1	289.24	5	2	374	54.0
20KPA240A-E	20KPA240CA-E	240	268.1	299.28	5	2	387	52.2
20KPA256A-E	20KPA256CA-E	256	286.0	319.27	5	2	412	49.0
20KPA280A-E	20KPA280CA-E	280	312.8	349.18	5	2	451	44.8
20KPA300A-E	20KPA300CA-E	300	335.1	374.08	5	2	483	41.8

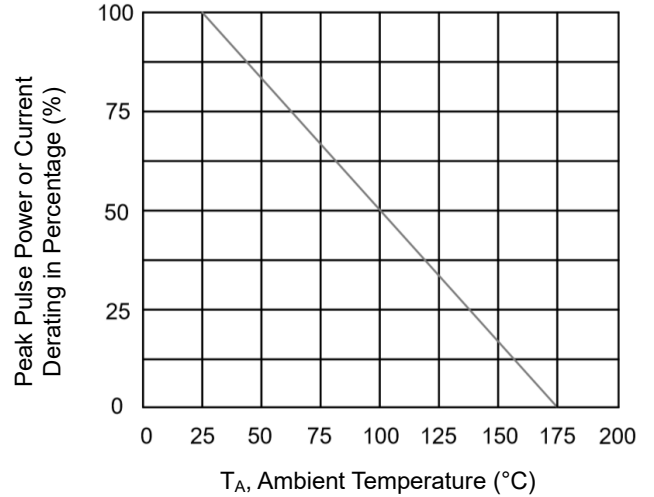
Note: T<sub>A</sub> = 25°C ambient temperature unless otherwise specified.

### CHARACTERISTIC CURVES

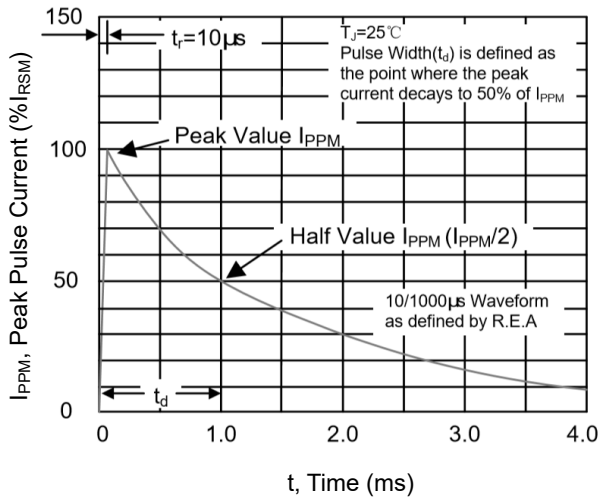
**Peak Pulse Power Rating Curve**



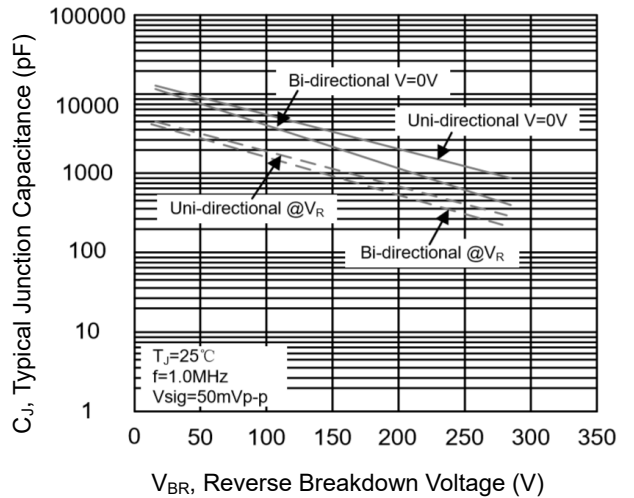
**Pulse Derating Curve**



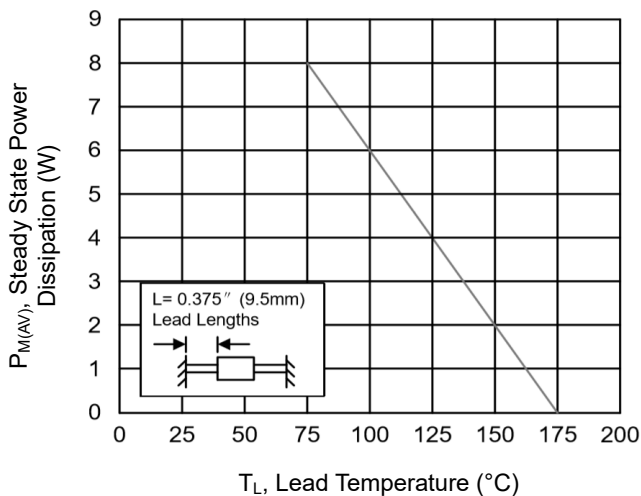
**Pulse Waveform**



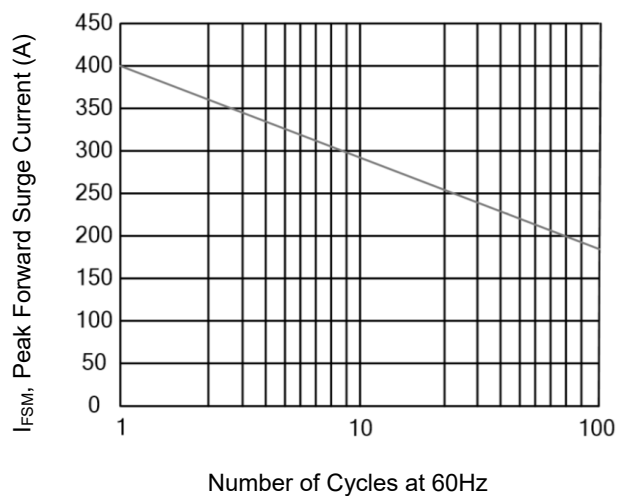
**Typical Junction Capacitance**



**Steady State Power Dissipation Derating Curve**



**Maximum Non-Repetitive Forward Surge Current Uni-Directional Only**



\*Specifications subject to change without notice.