

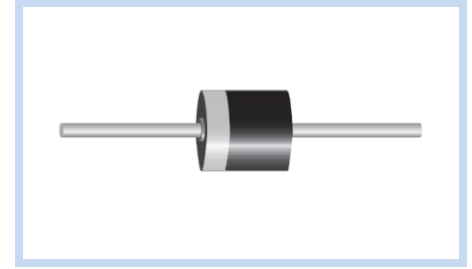
Transient Voltage Suppressors 5000W P600

5KP-E Series

MERITEK

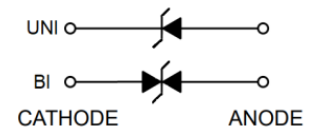
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{kV}$ (Air), $\pm 30\text{kV}$ (Contact)
- 5000W Peak Pulse Power (10/1000 μs), Repetitive Rate: 0.05%
- 5.0V to 250V 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

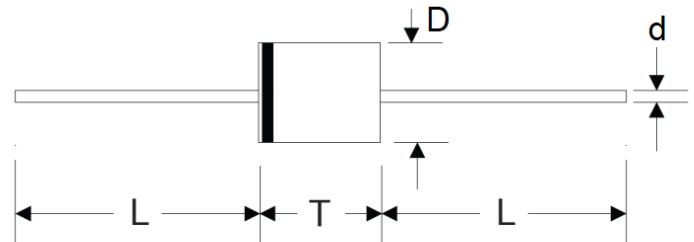
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 μs waveform	P_{PPM}	Minimum 5000	W
Peak Pulse Current on 10/1000 μs waveform	I_{PPM}	See Table	A
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$	P_D	8.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed 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

P600/R-6	Min(mm)	Max(mm)
D	8.60	9.10
T	8.60	9.10
L	25.4	-
d	1.19	1.32



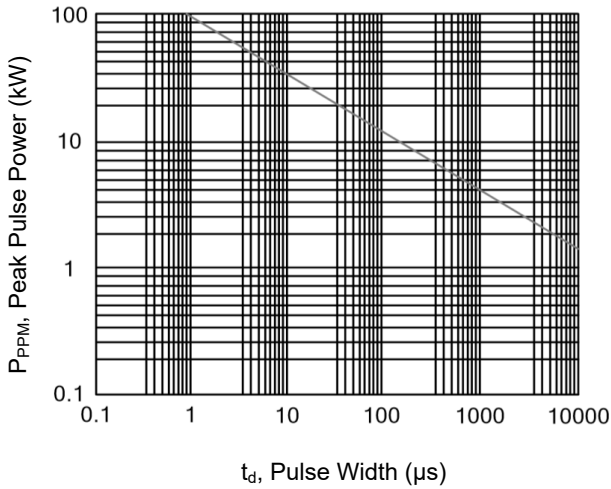
ELECTRICAL CHARACTERISTICS

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 _{RWM} (V)	V _{BR} Min(V)				
5KP5.0A-E	5KP5.0CA-E	5.0	6.40	7.00	50	5000	9.2	554.3
5KP6.0A-E	5KP6.0CA-E	6.0	6.67	7.37	50	5000	10.3	495.1
5KP6.5A-E	5KP6.5CA-E	6.5	7.22	7.98	50	2000	11.2	455.4
5KP7.0A-E	5KP7.0CA-E	7.0	7.78	8.60	50	1000	12.0	425.0
5KP7.5A-E	5KP7.5CA-E	7.5	8.33	9.21	5	250	12.9	395.3
5KP8.0A-E	5KP8.0CA-E	8.0	8.89	9.83	5	150	13.6	375.0
5KP8.5A-E	5KP8.5CA-E	8.5	9.44	10.4	5	50	14.4	354.2
5KP9.0A-E	5KP9.0CA-E	9.0	10.0	11.1	5	20	15.4	331.2
5KP10A-E	5KP10CA-E	10	11.1	12.3	5	15	17.0	300.0
5KP11A-E	5KP11CA-E	11	12.2	13.5	5	2	18.2	280.2
5KP12A-E	5KP12CA-E	12	13.3	14.7	5	2	19.9	256.3
5KP13A-E	5KP13CA-E	13	14.4	15.9	5	2	21.5	237.2
5KP14A-E	5KP14CA-E	14	15.6	17.2	5	2	23.2	219.8
5KP15A-E	5KP15CA-E	15	16.7	18.5	5	2	24.4	209.0
5KP16A-E	5KP16CA-E	16	17.8	19.7	5	2	26.0	196.2
5KP17A-E	5KP17CA-E	17	18.9	20.9	5	2	27.6	184.8
5KP18A-E	5KP18CA-E	18	20.0	22.1	5	2	29.2	174.7
5KP20A-E	5KP20CA-E	20	22.2	24.5	5	2	32.4	157.4
5KP22A-E	5KP22CA-E	22	24.0	26.9	5	2	35.5	143.7
5KP24A-E	5KP24CA-E	24	26.7	29.5	5	2	38.9	131.1
5KP26A-E	5KP26CA-E	26	28.9	31.9	5	2	42.1	121.1
5KP28A-E	5KP28CA-E	28	31.1	34.4	5	2	45.4	112.3
5KP30A-E	5KP30CA-E	30	33.3	36.8	5	2	48.4	105.4
5KP33A-E	5KP33CA-E	33	36.7	40.6	5	2	53.3	95.7
5KP36A-E	5KP36CA-E	36	40.0	44.2	5	2	58.1	87.8
5KP40A-E	5KP40CA-E	40	44.4	49.1	5	2	64.5	79.1
5KP43A-E	5KP43CA-E	43	47.8	52.8	5	2	69.4	73.5
5KP45A-E	5KP45CA-E	45	50.0	55.3	5	2	72.7	70.2
5KP48A-E	5KP48CA-E	48	53.3	58.9	5	2	77.4	65.9
5KP51A-E	5KP51CA-E	51	56.7	62.7	5	2	82.4	61.9
5KP54A-E	5KP54CA-E	54	60.0	66.3	5	2	87.1	58.6
5KP58A-E	5KP58CA-E	58	64.4	71.2	5	2	93.6	54.5
5KP60A-E	5KP60CA-E	60	66.7	73.7	5	2	96.8	52.7
5KP64A-E	5KP64CA-E	64	71.1	78.6	5	2	103	49.5
5KP70A-E	5KP70CA-E	70	77.8	86.0	5	2	113	45.1
5KP75A-E	5KP75CA-E	75	83.3	92.1	5	2	121	42.1
5KP78A-E	5KP78CA-E	78	86.7	95.8	5	2	126	40.5
5KP85A-E	5KP85CA-E	85	94.4	104	5	2	137	37.2
5KP90A-E	5KP90CA-E	90	100	111	5	2	146	34.9
5KP100A-E	5KP100CA-E	100	110	123	5	2	162	31.5
5KP110A-E	5KP110CA-E	110	122	135	5	2	177	28.8
5KP120A-E	5KP120CA-E	120	133	147	5	2	193	26.4
5KP130A-E	5KP130CA-E	130	144	159	5	2	209	24.4
5KP150A-E	5KP150CA-E	150	167	185	5	2	243	21.0
5KP160A-E	5KP160CA-E	160	178	197	5	2	259	19.7
5KP170A-E	5KP170CA-E	170	189	209	5	2	275	18.5
5KP180A-E	5KP180CA-E	180	201	222	5	2	292	17.5
5KP190A-E	5KP190CA-E	190	211	233	5	2	310.0	16.5
5KP200A-E	5KP200CA-E	200	224	247	5	2	329.2	15.5
5KP210A-E	5KP210CA-E	210	237	263	5	2	349.5	14.6
5KP220A-E	5KP220CA-E	220	246	272	5	2	371.1	13.7
5KP250A-E	5KP250CA-E	250	277	306	5	2	425.0	12.0

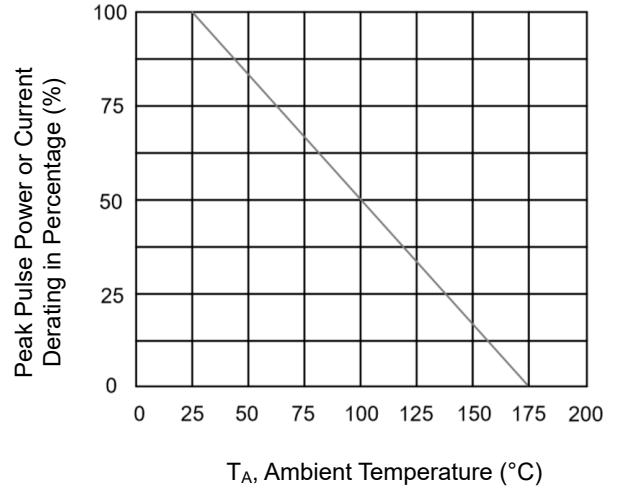
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CHARACTERISTIC CURVES

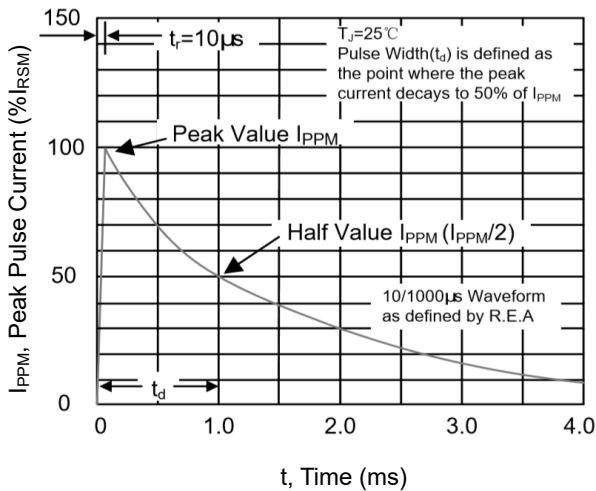
Peak Pulse Power Rating Curve



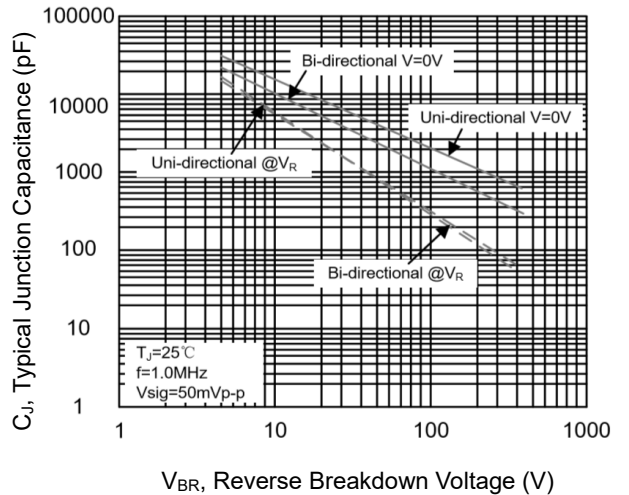
Pulse Derating Curve



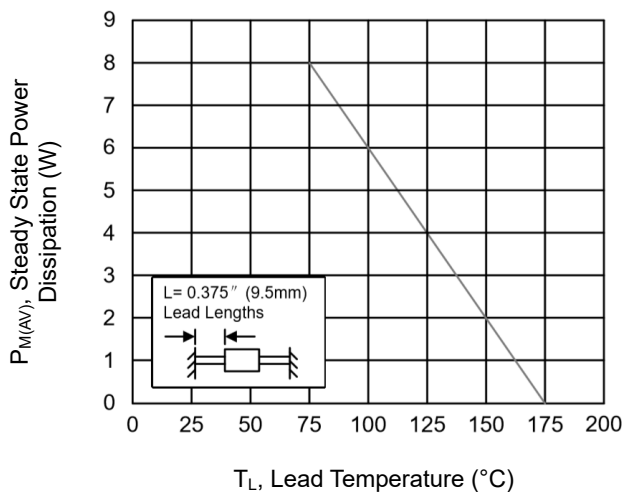
Pulse Waveform



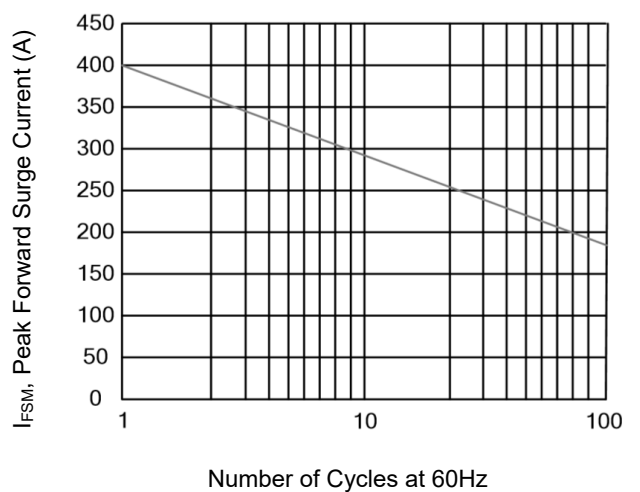
Typical Junction Capacitance



Steady State Power Dissipation Derating Curve



Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



*Specifications subject to change without notice.