

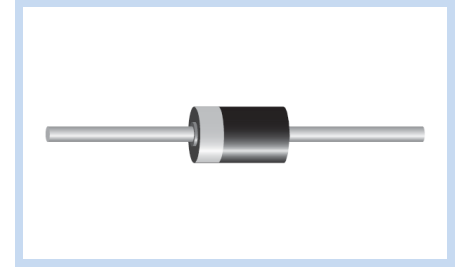
Transient Voltage Suppressors 400W DO-41

P4KE-E Series

MERITEK

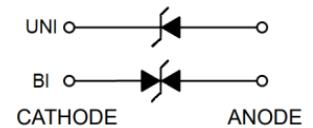
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{kV}$ (Air), $\pm 30\text{kV}$ (Contact)
- 400W Peak Pulse Power (10/1000 μs Waveform)
- 6.8V to 600V Standoff Voltage
- Excellent Clamping Capability
- Glass Passivated Junction
- UL Flammability Classification Rating 94V-0
- UL Safety Approved Certification No: E223045



MECHANICAL DATA

- Case: DO-41, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End Except Bipolar



MAXIMUM RATINGS AND CHARACTERISTICS

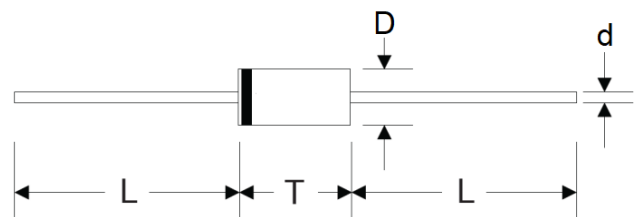
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation On 10/1000 μs Waveform	P_{PPM}	Minimum 400	W
Peak Pulse Current On 10/1000 μs Waveform	I_{PPM}	See Table	A
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$	$P_{M(AV)}$	1.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	40	A
IEC 61000-4-2 ESD (Air)	V_{ESD}	± 30	kV
IEC 61000-4-2 ESD (Contact)	V_{ESD}	± 30	kV
Operating Junction And Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	60	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	$^\circ\text{C/W}$

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

DO-41	Min(mm)	Max(mm)
D	2.00	2.70
T	4.10	5.20
L	25.40	-
d	0.71	0.84



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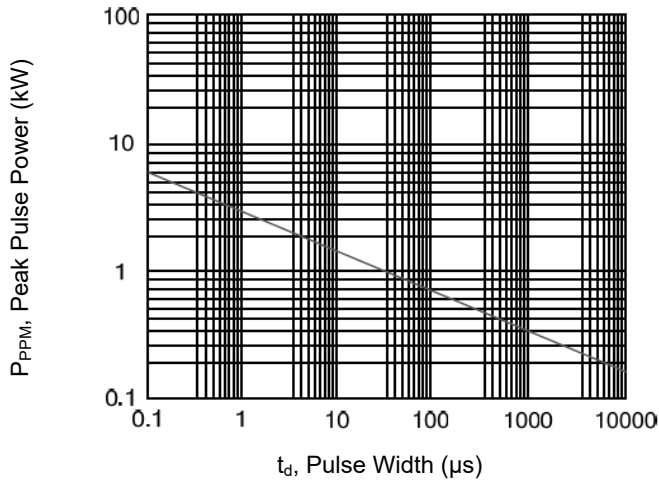
ELECTRICAL CHARACTERISTICS

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)	V _{BR} Max(V)	I _T (mA)	I _R (uA) @ V _{RWM}	V _C (V) @ I _{PP}	I _{PP} (A) Max
P4KE6.8A-E	P4KE6.8CA-E	5.80	6.45	7.14	10	1000	10.5	39.0
P4KE7.5A-E	P4KE7.5CA-E	6.40	7.13	7.88	10	500	11.3	36.3
P4KE8.2A-E	P4KE8.2CA-E	7.02	7.79	8.61	10	200	12.1	33.9
P4KE9.1A-E	P4KE9.1CA-E	7.78	8.65	9.55	1	50	13.4	30.6
P4KE10A-E	P4KE10CA-E	8.55	9.50	10.50	1	10	14.5	28.3
P4KE11A-E	P4KE11CA-E	9.40	10.50	11.60	1	5	15.6	26.3
P4KE12A-E	P4KE12CA-E	10.20	11.40	12.60	1	5	16.7	24.6
P4KE13A-E	P4KE13CA-E	11.10	12.40	13.70	1	1	18.2	22.5
P4KE15A-E	P4KE15CA-E	12.80	14.30	15.80	1	1	21.2	19.3
P4KE16A-E	P4KE16CA-E	13.60	15.20	16.80	1	1	22.5	18.2
P4KE18A-E	P4KE18CA-E	15.30	17.10	18.90	1	1	25.2	16.1
P4KE20A-E	P4KE20CA-E	17.10	19.00	21.00	1	1	27.7	14.8
P4KE22A-E	P4KE22CA-E	18.80	20.90	23.10	1	1	30.6	13.4
P4KE24A-E	P4KE24CA-E	20.50	22.80	25.20	1	1	33.2	12.3
P4KE27A-E	P4KE27CA-E	23.10	25.70	28.40	1	1	37.5	10.9
P4KE30A-E	P4KE30CA-E	25.60	28.50	31.50	1	1	41.4	9.9
P4KE33A-E	P4KE33CA-E	28.20	31.40	34.70	1	1	45.7	9.0
P4KE36A-E	P4KE36CA-E	30.80	34.20	37.80	1	1	49.9	8.2
P4KE39A-E	P4KE39CA-E	33.30	37.10	41.00	1	1	53.9	7.6
P4KE43A-E	P4KE43CA-E	36.80	40.90	45.20	1	1	59.3	6.9
P4KE47A-E	P4KE47CA-E	40.20	44.70	49.40	1	1	64.8	6.3
P4KE51A-E	P4KE51CA-E	43.60	48.50	53.60	1	1	70.1	5.8
P4KE56A-E	P4KE56CA-E	47.80	53.20	58.80	1	1	77.0	5.3
P4KE62A-E	P4KE62CA-E	53.00	58.90	65.10	1	1	85.0	4.8
P4KE68A-E	P4KE68CA-E	58.10	64.60	71.40	1	1	92.0	4.5
P4KE75A-E	P4KE75CA-E	64.10	71.30	78.80	1	1	103	4.0
P4KE82A-E	P4KE82CA-E	70.10	77.90	86.10	1	1	113	3.6
P4KE91A-E	P4KE91CA-E	77.80	86.50	95.50	1	1	125	3.3
P4KE100A-E	P4KE100CA-E	85.50	95.00	105.0	1	1	137	3.0
P4KE110A-E	P4KE110CA-E	94.00	105.0	116.0	1	1	152	2.7
P4KE120A-E	P4KE120CA-E	102	114.0	126.0	1	1	165	2.5
P4KE130A-E	P4KE130CA-E	111	124.0	137.0	1	1	179	2.3
P4KE150A-E	P4KE150CA-E	128	143.0	158.0	1	1	207	2.0
P4KE160A-E	P4KE160CA-E	136	152.0	168.0	1	1	219	1.9
P4KE170A-E	P4KE170CA-E	145	162.0	179.0	1	1	234	1.8
P4KE180A-E	P4KE180CA-E	154	171.0	189.0	1	1	246	1.7
P4KE200A-E	P4KE200CA-E	171	190.0	210.0	1	1	274	1.5
P4KE220A-E	P4KE220CA-E	185	209.0	231.0	1	1	328	1.3
P4KE250A-E	P4KE250CA-E	214	237.0	263.0	1	1	344	1.2
P4KE300A-E	P4KE300CA-E	256	285.0	315.0	1	1	414	1.0
P4KE350A-E	P4KE350CA-E	300	332.0	368.0	1	1	482	0.85
P4KE400A-E	P4KE400CA-E	342	380.0	420.0	1	1	548	0.75
P4KE440A-E	P4KE440CA-E	376	418.0	462.0	1	1	602	0.68
P4KE480A-E	P4KE480CA-E	408	456.0	504.0	1	1	658	0.61
P4KE510A-E	P4KE510CA-E	434	485.0	535.0	1	1	698	0.57
P4KE530A-E	P4KE530CA-E	450	503.5	556.5	1	1	725	0.55
P4KE540A-E	P4KE540CA-E	459	513.0	567.0	1	1	740	0.54
P4KE550A-E	P4KE550CA-E	467	522.5	577.5	1	1	760	0.52
P4KE600A-E	P4KE600CA-E	510	570.0	630.0	1	1	828	0.48

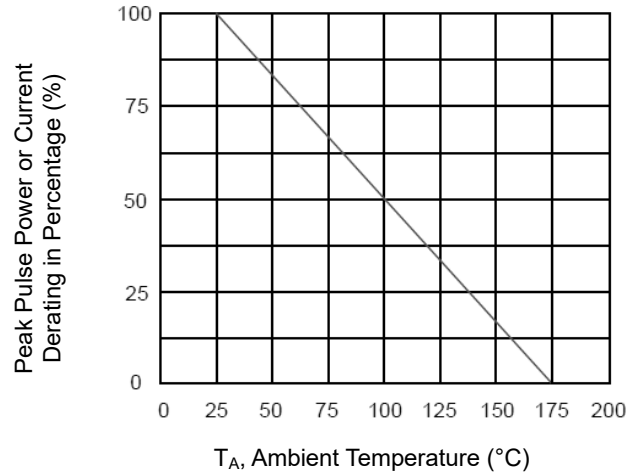
Note: T_A = 25°C ambient temperature unless otherwise specified.

CHARACTERISTIC CURVES

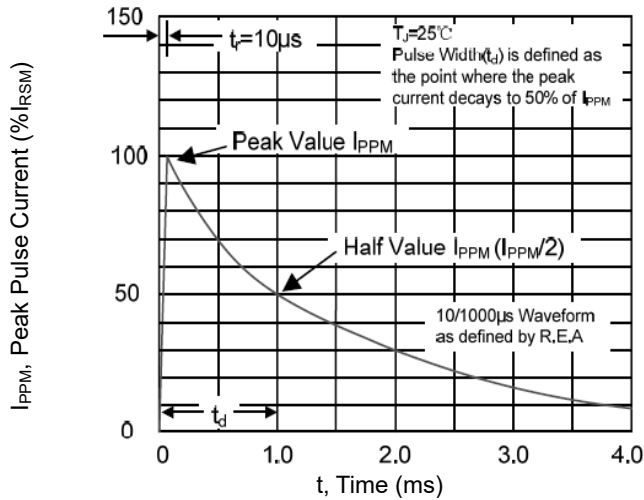
Peak Pulse Power Rating Curve



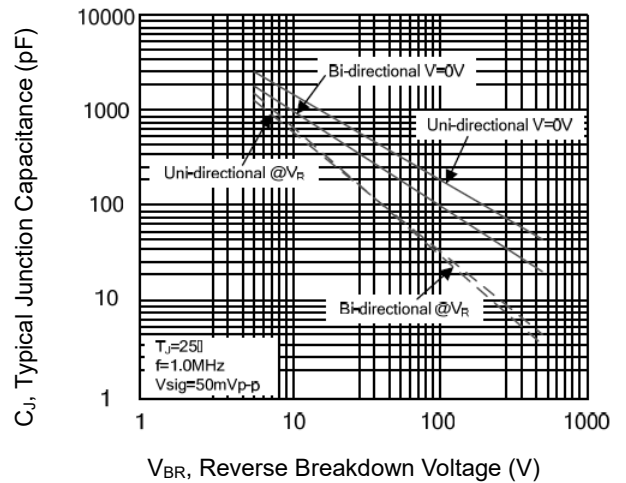
Pulse Derating Curve



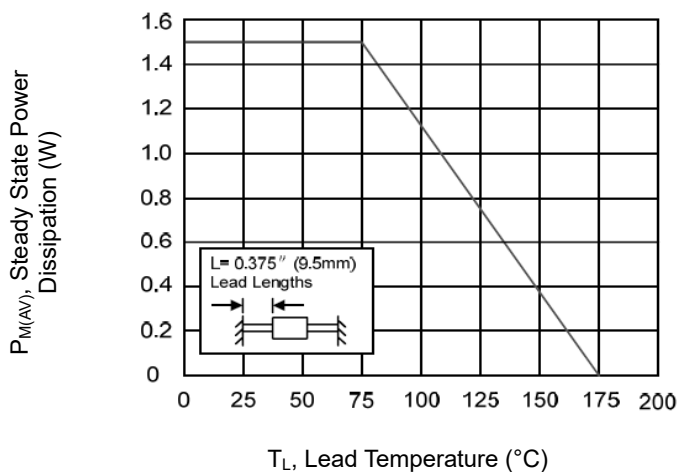
Pulse Waveform



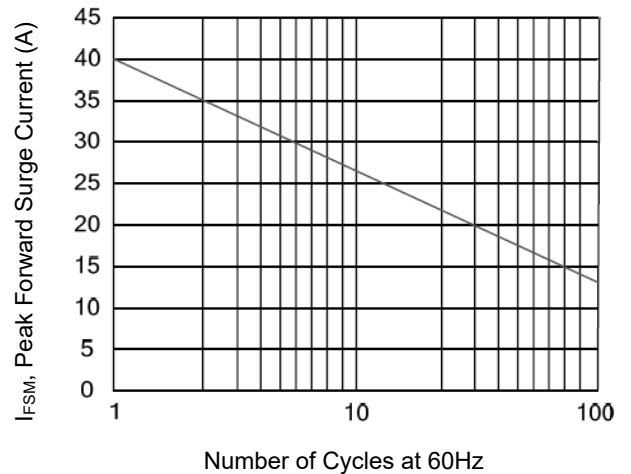
Typical Junction Capacitance



Steady State Power Dissipation Derating Curve



Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



*Specifications subject to change without notice