

VOLTAGE RANGE: 6.8 - 440V

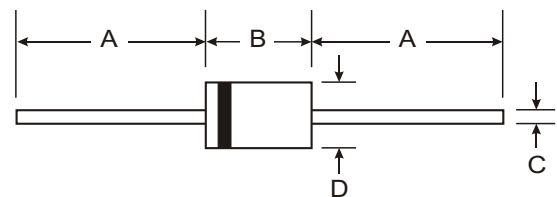
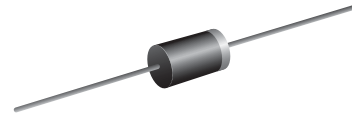
POWER: 400Watts

Features

- 400W Peak Pulse Power Dissipation
- Voltage Range 6.8V - 400V
- Constructed with Glass Passivated Die
- Uni and Bidirectional Versions Available
- Excellent Clamping Capability
- Fast Response Time

Mechanical Data

- Case: DO-41
- Leads: Plated Leads, Solderable per MIL-STD-202, Method 208
- Marking: Unidirectional - Type Number and Cathode Band
- Marking: Bidirectional - Type Number Only
- Mounting Position: Any
- Weight : 0.339 gram



DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Power Dissipation, $T_p = 1.0$ ms (Non repetitive current pulse, per Figure 1 and derated above $T_A = 25^\circ\text{C}$ per Figure 4)	P_{pk}	400	W
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 9.5 mm per Figure 5 (Mounted on Copper Land Area of 40mm ²)	P_d	1.0	W
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave, Superimposed on Rated Load (JEDEC Method) Duty Cycle = 4 pulses per minute maximum)	I_{FSM}	40	A
Forward Voltage @ $I_F = 20\text{A}$ 300 μs Square Wave Pulse, Unidirectional Only	V_F	3.5 6.5	V
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +175	$^\circ\text{C}$

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(UNI)	(BI)	V _{RWM} (V)	V _{BR} MIN(V)	V _{BR} MAX(V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
P4KE6.8A	P4KE6.8CA	5.80	6.45	7.14	10.0	10.5	40.0	1000.0
P4KE7.5A	P4KE7.5CA	6.40	7.13	7.88	10.0	11.3	37.0	500.0
P4KE8.2A	P4KE8.2CA	7.02	7.79	8.61	10.0	12.1	35.0	200.0
P4KE9. 1A	P4KE9. 1CA	7.78	8.65	9.55	1.0	13.4	31.0	50.0
P4KE10A	P4KE10CA	8.55	9.50	10.5	1.0	14.5	29.0	10.0
P4KE11A	P4KE11CA	9.40	10.5	11.6	1.0	15.6	27.0	5.0
P4KE12A	P4KE12CA	10.2	11.4	12.6	1.0	16.7	25.0	5.0
P4KE13A	P4KE13CA	11.1	12.4	13.7	1.0	18.2	23.0	5.0
P4KE15A	P4KE15CA	12.8	14.3	15.8	1.0	21.2	20.0	5.0
P4KE16A	P4KE16CA	13.6	15.2	16.8	1.0	22.5	19.0	5.0
P4KE18A	P4KE18CA	15.3	17.1	18.9	1.0	25.2	17.0	5.0
P4KE20A	P4KE20CA	17.1	19.0	21.0	1.0	27.7	15.0	5.0
P4KE22A	P4KE22CA	18.8	20.9	23.1	1.0	30.6	14.0	5.0
P4KE24A	P4KE24CA	20.5	22.8	25.2	1.0	33.2	13.0	5.0
P4KE27A	P4KE27CA	23.1	25.7	28.4	1.0	37.5	11.2	5.0
P4KE30A	P4KE30CA	25.6	28.5	31.5	1.0	41.4	10.0	5.0
P4KE33A	P4KE33CA	28.2	31.4	34.7	1.0	45.7	9.0	5.0
P4KE36A	P4KE36CA	30.8	34.2	37.8	1.0	49.9	8.4	5.0
P4KE39A	P4KE39CA	33.3	37.1	41.0	1.0	53.9	7.8	5.0
P4KE43A	P4KE43CA	36.8	40.9	45.2	1.0	59.3	7.1	5.0
P4KE47A	P4KE47CA	40.2	44.7	49.4	1.0	64.8	5.0	5.0
P4KE51A	P4KE51CA	43.6	48.5	53.6	1.0	70.1	6.0	5.0
P4KE56A	P4KE56CA	47.8	53.2	58.8	1.0	77.0	5.5	5.0
P4KE62A	P4KE62CA	53.0	58.9	65.1	1.0	85.0	5.0	5.0
P4KE68A	P4KE68CA	58.1	64.6	71.4	1.0	92.0	4.6	5.0
P4KE75A	P4KE75CA	64.1	71.3	78.8	1.0	103	4.1	5.0
P4KE82A	P4KE82CA	70.1	77.9	86.1	1.0	113	3.7	5.0
P4KE91A	P4KE91CA	77.8	86.5	95.5	1.0	125	3.4	5.0
P4KE100A	P4KE100CA	85.5	95.0	105	1.0	137	3.1	5.0
P4KE110A	P4KE110CA	94.0	105	116	1.0	152	2.8	5.0
P4KE120A	P4KE120CA	102	114	126	1.0	165	2.5	5.0

TYPE		Reverse Stand- Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(UNI)	(BI)	V _{RWM} (V)	V _{BR} MIN(V)	V _{BR} MAX(V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
P4KE130A	P4KE130CA	111	124	137	1.0	179	2.3	5.0
P4KE150A	P4KE150CA	128	143	158	1.0	207	2.0	5.0
P4KE160A	P4KE160CA	136	152	168	1.0	219	1.9	5.0
P4KE170A	P4KE170CA	145	162	179	1.0	234	1.8	5.0
P4KE180A	P4KE180CA	154	171	189	1.0	246	1.7	5.0
P4KE200A	P4KE200CA	171	190	210	1.0	274	1.53	5.0
P4KE220A	P4KE220CA	185	209	231	1.0	328	1.22	5.0
P4KE250A	P4KE250CA	214	237	263	1.0	344	1.16	5.0
P4KE300A	P4KE300CA	256	285	315	1.0	414	0.97	5.0
P4KE350A	P4KE350CA	300	333	368	1.0	482	0.83	5.0
P4KE400A	P4KE400CA	342	380	420	1.0	548	0.73	5.0
P4KE440A	P4KE440CA	376	418	462	1.0	602	0.65	5.0

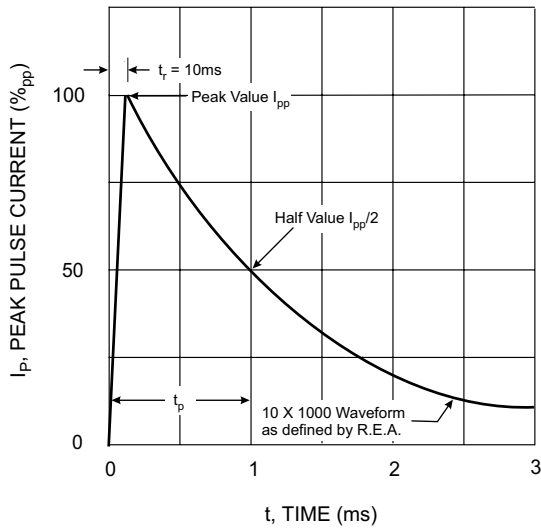


Fig. 1 Pulse Waveform

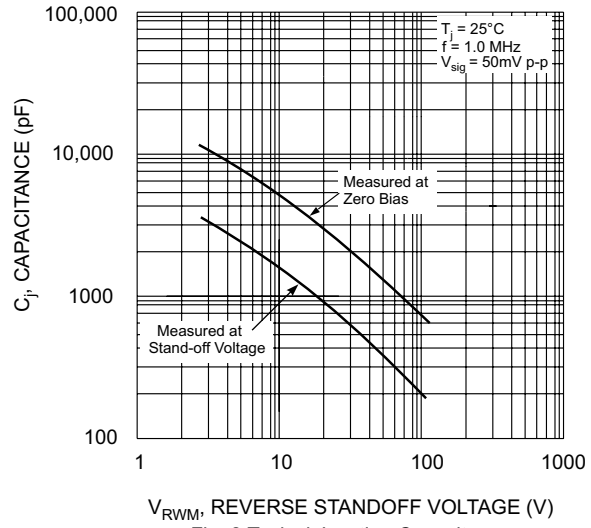


Fig. 2 Typical Junction Capacitance

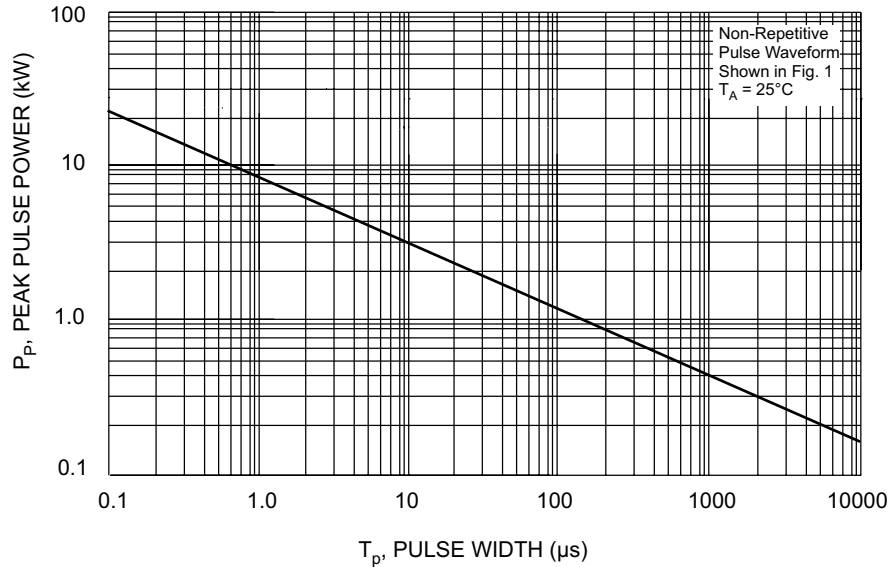


Fig. 3 Pulse Rating Curve

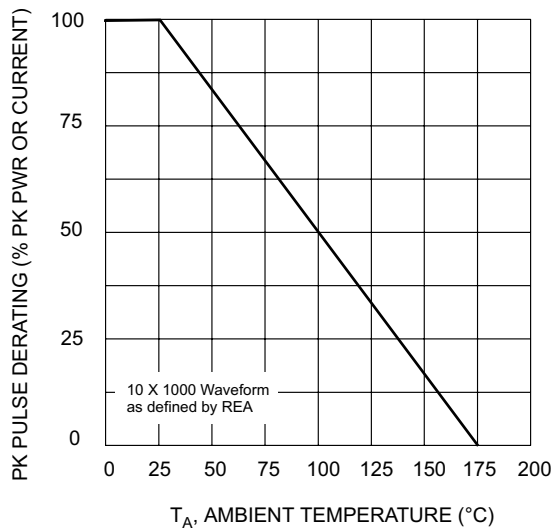


Fig. 4 Pulse Derating Curve

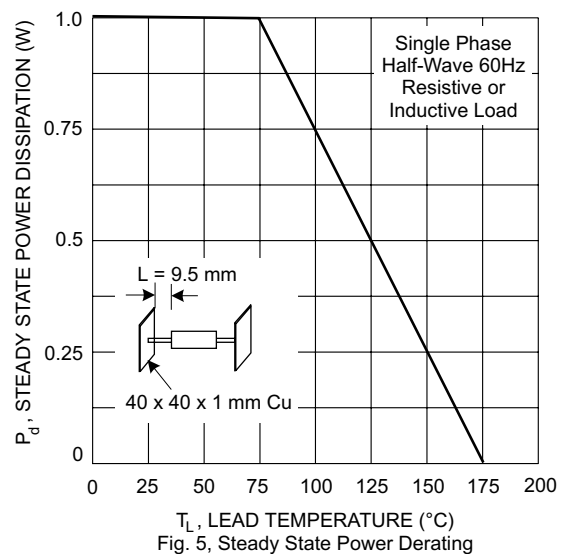


Fig. 5 Steady State Power Derating

- Notes:
1. Suffix 'C' denotes bidirectional device. Suffix 'A' denotes 5% tolerance device, no suffix denotes 10% tolerance device.
 2. For bidirectional devices having V_R of 10 volts and under, the I_R limit is doubled.
 3. Type Number marking may contain a "V" or dash in place of decimal point.