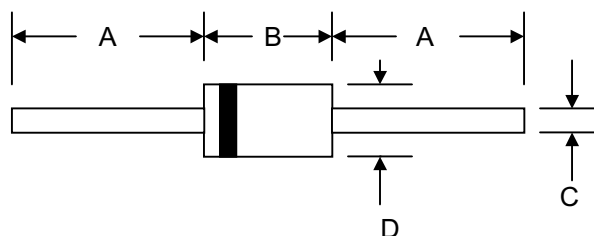


Features

- Glass Passivated Die Construction
- 400W Peak Pulse Power Dissipation
- 6.8V – 440V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O
- UL Recognized File # E224235
- Green Products in Compliance with the RoHS Directive


Mechanical Data

- Case: JEDEC DO-41 Low Profile Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking:
Unidirectional – Device Code and Cathode Band
Bidirectional – Device Code Only
- Weight: 0.34 grams (approx.)

DO-41				
Dim	Min	Max	Min	Max
A	25.4	—	1.000	—
B	4.06	5.21	0.159	0.205
C	0.71	0.864	0.028	0.034
D	2.00	2.72	0.079	0.107
		In mm		In inch

"C" Suffix Designates Bi-directional Devices

"A" Suffix Designates 5% Tolerance Devices

No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at T _A = 25°C (Note 1, 2, 5) Figure 1	PPPM	400 Minimum	W
Peak Forward Surge Current per Figure 6 (Note 3)	I _{FSM}	40	A
Peak Pulse Current on 10/1000μS Waveform (Note 1) Figure 3	I _{PPM}	See Table 1	A
Steady State Power Dissipation (Note 2, 4)	P _{M(AV)}	1.0	W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

Note: 1. Non-repetitive current pulse, per Figure 3 and derated above T_A = 25°C per Figure 2

2. Mounted on 40mm² copper pad

3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum

4. Lead temperature at 75°C = T_L

5. Peak pulse power waveform is 10/1000μS



Fig. 1 Pulse Waveform

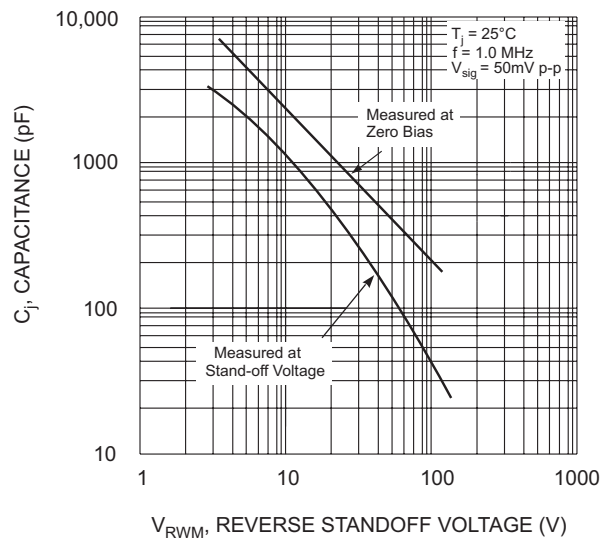


Fig. 2 Typical Junction Capacitance

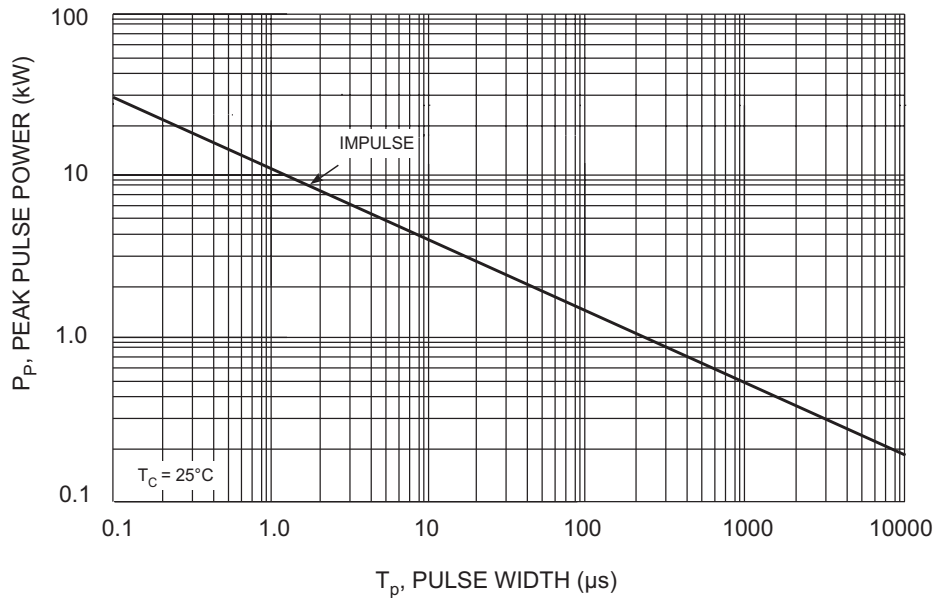


Fig. 3 Pulse Rating Curve

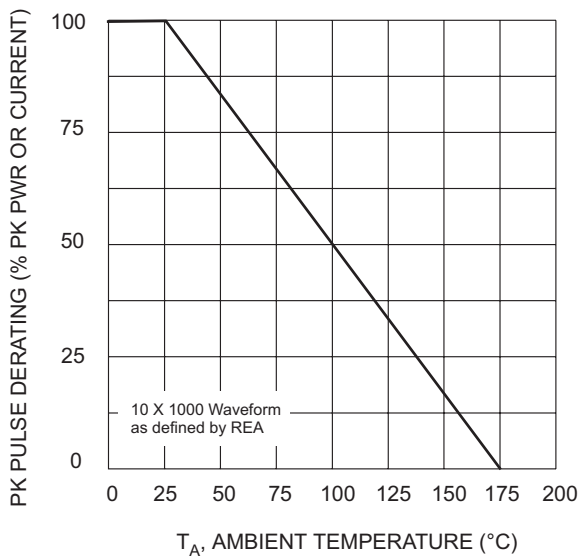


Fig. 4 Pulse Derating Curve

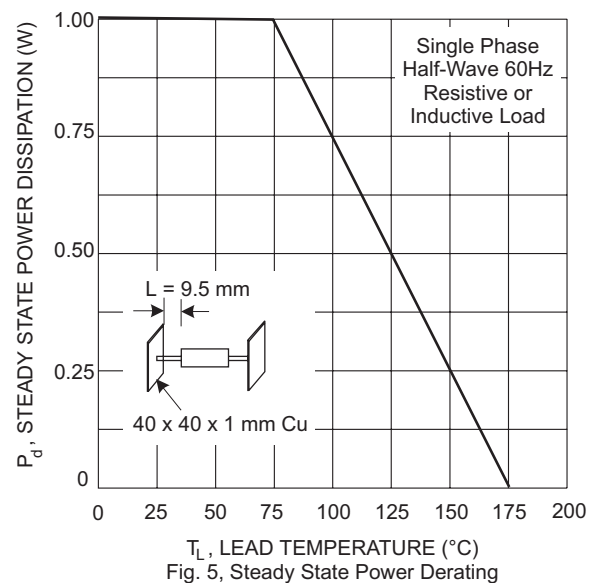


Fig. 5, Steady State Power Derating

UNI-DIRECTIONAL 400 WATT AXIAL LEAD TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P4KE6.8-G	5.50	6.12	7.48	10	10.8	38.00	1000
P4KE6.8A-G	5.80	6.45	7.14	10	10.5	40.00	1000
P4KE7.5-G	6.05	6.75	8.25	10	11.7	36.00	500
P4KE7.5A-G	6.40	7.13	7.88	10	11.3	37.00	500
P4KE8.2-G	6.63	7.38	9.02	10	12.5	33.00	200
P4KE8.2A-G	7.02	7.79	8.61	10	12.1	35.00	200
P4KE9.1-G	7.37	8.19	10.00	1	13.8	30.00	50
P4KE9.1A-G	7.78	8.65	9.50	1	13.4	31.00	50
P4KE10-G	8.10	9.00	11.00	1	15.0	28.00	10
P4KE10A-G	8.55	9.50	10.50	1	14.5	29.00	10
P4KE11-G	8.92	9.90	12.10	1	16.2	26.00	5
P4KE11A-G	9.40	10.50	11.60	1	15.6	27.00	5
P4KE12-G	9.72	10.80	13.20	1	17.3	24.00	5
P4KE12A-G	10.20	11.40	12.60	1	16.7	25.00	5
P4KE13-G	10.50	11.70	14.30	1	19.0	22.00	5
P4KE13A-G	11.10	12.40	13.70	1	18.2	23.00	5
P4KE15-G	12.10	13.50	16.50	1	22.0	19.00	5
P4KE15A-G	12.80	14.30	15.80	1	21.2	20.00	5
P4KE16-G	12.90	14.40	17.60	1	23.5	18.00	5
P4KE16A-G	13.60	15.20	16.80	1	22.5	19.00	5
P4KE18-G	14.50	16.20	19.80	1	26.5	16.00	5
P4KE18A-G	15.30	17.10	18.90	1	25.2	17.00	5
P4KE20-G	16.20	18.00	22.00	1	29.1	14.00	5
P4KE20A-G	17.10	19.00	21.00	1	27.7	15.00	5
P4KE22-G	17.80	19.80	24.20	1	31.9	13.00	5
P4KE22A-G	18.80	20.90	23.10	1	30.6	14.00	5
P4KE24-G	19.40	21.60	26.40	1	34.7	12.00	5
P4KE24A-G	20.50	22.80	25.20	1	33.2	13.00	5
P4KE27-G	21.80	24.30	29.70	1	39.1	11.00	5
P4KE27A-G	23.10	25.70	28.40	1	37.5	11.20	5
P4KE30-G	24.30	27.00	33.00	1	43.5	10.00	5
P4KE30A-G	25.60	28.50	31.50	1	41.4	10.00	5
P4KE33-G	26.80	29.70	36.30	1	47.7	9.00	5
P4KE33A-G	28.20	31.40	34.70	1	45.7	9.00	5
P4KE36-G	29.10	32.40	39.60	1	52.0	8.00	5
P4KE36A-G	30.80	34.20	37.80	1	49.9	8.40	5
P4KE39-G	31.60	35.10	42.90	1	56.4	7.40	5
P4KE39A-G	33.30	37.10	41.00	1	53.9	7.80	5
P4KE43-G	34.80	38.70	47.30	1	61.9	6.80	5
P4KE43A-G	36.80	40.90	45.20	1	59.3	7.10	5
P4KE47-G	38.10	42.30	51.70	1	67.8	6.20	5
P4KE47A-G	40.20	44.70	49.40	1	64.8	5.00	5
P4KE51-G	41.30	45.90	56.10	1	73.5	5.70	5
P4KE51A-G	43.60	48.50	53.60	1	70.1	6.00	5
P4KE56-G	45.60	50.40	61.60	1	80.5	5.20	5
P4KE56A-G	47.80	53.20	58.80	1	77.0	5.50	5
P4KE62-G	50.20	55.80	68.20	1	89.0	4.70	5
P4KE62A-G	53.00	58.90	65.10	1	85.0	5.00	5
P4KE68-G	55.10	61.20	74.80	1	98.0	4.30	5
P4KE68A-G	58.10	64.60	71.40	1	92.0	4.60	5
P4KE75-G	60.70	67.50	82.50	1	108.0	3.90	5
P4KE75A-G	64.10	71.30	78.80	1	103.0	4.10	5
P4KE82-G	66.40	73.80	90.20	1	118.0	3.60	5
P4KE82A-G	70.10	77.90	86.10	1	113.0	3.70	5
P4KE91-G	73.70	81.90	100.00	1	131.0	3.20	5
P4KE91A-G	77.80	86.50	95.50	1	125.0	3.40	5
P4KE100-G	81.00	90.00	110.00	1	144.0	2.90	5
P4KE100A-G	85.50	95.00	105.00	1	137.0	3.10	5
P4KE110-G	89.20	99.00	121.00	1	158.0	2.70	5
P4KE110A-G	94.00	105.00	116.00	1	152.0	2.80	5
P4KE120-G	97.20	108.00	132.00	1	173.0	2.40	5
P4KE120A-G	102.00	114.00	126.00	1	165.0	2.50	5
P4KE130-G	105.00	117.00	143.00	1	187.0	2.20	5
P4KE130A-G	111.00	124.00	137.00	1	179.0	2.30	5
P4KE150-G	121.00	135.00	165.00	1	215.0	2.00	5
P4KE150A-G	128.00	143.00	158.00	1	207.0	2.00	5
P4KE160-G	130.00	144.00	176.00	1	230.0	1.80	5
P4KE160A-G	136.00	152.00	168.00	1	219.0	1.90	5
P4KE170-G	138.00	153.00	187.00	1	244.0	1.70	5
P4KE170A-G	145.00	162.00	179.00	1	234.0	1.80	5
P4KE180-G	146.00	162.00	198.00	1	258.0	1.60	5
P4KE180A-G	154.00	171.00	189.00	1	246.0	1.70	5
P4KE200-G	162.00	180.00	220.00	1	287.0	1.50	5
P4KE200A-G	171.00	190.00	210.00	1	274.0	1.50	5
P4KE220-G	175.00	198.00	242.00	1	344.0	1.20	5
P4KE220A-G	185.00	209.00	231.00	1	328.0	1.20	5
P4KE250-G	202.00	225.00	275.00	1	360.0	1.10	5
P4KE250A-G	214.00	237.00	263.00	1	344.0	1.20	5
P4KE300-G	243.00	270.00	330.00	1	430.0	0.90	5
P4KE300A-G	256.00	285.00	315.00	1	414.0	1.00	5
P4KE350-G	284.00	315.00	385.00	1	504.0	0.80	5
P4KE350A-G	300.00	332.00	368.00	1	482.0	0.80	5
P4KE400-G	324.00	360.00	440.00	1	574.0	0.70	5
P4KE400A-G	342.00	380.00	420.00	1	548.0	0.70	5
P4KE440-G	356.00	396.00	484.00	1	631.0	1.00	5
P4KE440A-G	376.00	418.00	462.00	1	600.0	1.00	5

BI-DIRECTIONAL 400 WATT AXIAL LEAD TVS

BI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P4KE6.8C-G	5.50	6.12	7.48	10	10.8	38.00	2000
P4KE6.8CA-G	5.80	6.45	7.14	10	10.5	40.00	2000
P4KE7.5C-G	6.05	6.75	8.25	10	11.7	36.00	1000
P4KE7.5CA-G	6.40	7.13	7.88	10	11.3	37.00	1000
P4KE8.2C-G	6.63	7.38	9.02	10	12.5	33.00	400
P4KE8.2CA-G	7.02	7.79	8.61	10	12.1	35.00	400
P4KE9.1C-G	7.37	8.19	10.00	1	13.8	30.00	10
P4KE9.1CA-G	7.78	8.65	9.50	1	13.4	31.00	10
P4KE10C-G	8.10	9.00	11.00	1	15.0	28.00	20
P4KE10CA-G	8.55	9.50	10.50	1	14.5	29.00	20
P4KE11C-G	8.92	9.90	12.10	1	16.2	26.00	10
P4KE11CA-G	9.40	10.50	11.60	1	15.6	27.00	10
P4KE12C-G	9.72	10.80	13.20	1	17.3	24.00	5
P4KE12CA-G	10.20	11.40	12.60	1	16.7	25.00	5
P4KE13C-G	10.50	11.70	14.30	1	19.0	22.00	5
P4KE13CA-G	11.10	12.40	13.70	1	18.2	23.00	5
P4KE15C-G	12.10	13.50	16.50	1	22.0	19.00	5
P4KE15CA-G	12.80	14.30	15.80	1	21.2	20.00	5
P4KE16C-G	12.90	14.40	17.60	1	23.5	18.00	5
P4KE16CA-G	13.60	15.20	16.80	1	22.5	19.00	5
P4KE18C-G	14.50	16.20	19.80	1	26.5	16.00	5
P4KE18CA-G	15.30	17.10	18.90	1	25.2	17.00	5
P4KE20C-G	16.20	18.00	22.00	1	29.1	14.00	5
P4KE20CA-G	17.10	19.00	21.00	1	27.7	15.00	5
P4KE22C-G	17.80	19.80	24.20	1	31.9	13.00	5
P4KE22CA-G	18.80	20.90	23.10	1	30.6	14.00	5
P4KE24C-G	19.40	21.60	26.40	1	34.7	12.00	5
P4KE24CA-G	20.50	22.80	25.20	1	33.2	13.00	5
P4KE27C-G	21.80	24.30	29.70	1	39.1	11.00	5
P4KE27CA-G	23.10	25.70	28.40	1	37.5	11.20	5
P4KE30C-G	24.30	27.00	33.00	1	43.5	10.00	5
P4KE30CA-G	25.60	28.50	31.50	1	41.4	10.00	5
P4KE33C-G	26.80	29.70	36.30	1	47.7	9.00	5
P4KE33CA-G	28.20	31.40	34.70	1	45.7	9.00	5
P4KE36C-G	29.10	32.40	39.60	1	52.0	8.00	5
P4KE36CA-G	30.80	34.20	37.80	1	49.9	8.40	5
P4KE39C-G	31.60	35.10	42.90	1	56.4	7.40	5
P4KE39CA-G	33.30	37.10	41.00	1	53.9	7.80	5
P4KE43C-G	34.80	38.70	47.30	1	61.9	6.80	5
P4KE43CA-G	36.80	40.90	45.20	1	59.3	7.10	5
P4KE47C-G	38.10	42.30	51.70	1	67.8	6.20	5
P4KE47CA-G	40.20	44.70	49.40	1	64.8	5.00	5
P4KE51C-G	41.30	45.90	56.10	1	73.5	5.70	5
P4KE51CA-G	43.60	48.50	53.60	1	70.1	6.00	5
P4KE56C-G	45.60	50.40	61.60	1	80.5	5.20	5
P4KE56CA-G	47.80	53.20	58.80	1	77.0	5.50	5
P4KE62C-G	50.20	55.80	68.20	1	89.0	4.70	5
P4KE62CA-G	53.00	58.90	65.10	1	85.0	5.00	5
P4KE68C-G	55.10	61.20	74.80	1	98.0	4.30	5
P4KE68CA-G	58.10	64.60	71.40	1	92.0	4.60	5
P4KE75C-G	60.70	67.50	82.50	1	108.0	3.90	5
P4KE75CA-G	64.10	71.30	78.80	1	103.0	4.10	5
P4KE82C-G	66.40	73.80	90.20	1	118.0	3.60	5
P4KE82CA-G	70.10	77.90	86.10	1	113.0	3.70	5
P4KE91C-G	73.70	81.90	100.00	1	131.0	3.20	5
P4KE91CA-G	77.80	86.50	95.50	1	125.0	3.40	5
P4KE100C-G	81.00	90.00	110.00	1	144.0	2.90	5
P4KE100CA-G	85.50	95.00	105.00	1	137.0	3.10	5
P4KE110C-G	89.20	99.00	121.00	1	158.0	2.70	5
P4KE110CA-G	94.00	105.00	116.00	1	152.0	2.80	5
P4KE120C-G	97.20	108.00	132.00	1	173.0	2.40	5
P4KE120CA-G	102.00	114.00	126.00	1	165.0	2.50	5
P4KE130C-G	105.00	117.00	143.00	1	187.0	2.20	5
P4KE130CA-G	111.00	124.00	137.00	1	179.0	2.30	5
P4KE150C-G	121.00	135.00	165.00	1	215.0	2.00	5
P4KE150CA-G	128.00	143.00	158.00	1	207.0	2.00	5
P4KE160C-G	130.00	144.00	176.00	1	230.0	1.80	5
P4KE160CA-G	136.00	152.00	168.00	1	219.0	1.90	5
P4KE170C-G	138.00	153.00	187.00	1	244.0	1.70	5
P4KE170CA-G	145.00	162.00	179.00	1	234.0	1.80	5
P4KE180C-G	146.00	162.00	198.00	1	258.0	1.60	5
P4KE180CA-G	154.00	171.00	189.00	1	246.0	1.70	5
P4KE200C-G	162.00	180.00	220.00	1	287.0	1.50	5
P4KE200CA-G	171.00	190.00	210.00	1	274.0	1.53	5
P4KE220C-G	175.00	198.00	242.00	1	344.0	1.16	5
P4KE220CA-G	185.00	209.00	231.00	1	328.0	1.22	5
P4KE250C-G	202.00	225.00	275.00	1	360.0	1.11	5
P4KE250CA-G	214.00	237.00	263.00	1	344.0	1.16	5
P4KE300C-G	243.00	270.00	330.00	1	430.0	0.93	5
P4KE300CA-G	256.00	285.00	315.00	1	414.0	0.97	5
P4KE350C-G	284.00	315.00	385.00	1	504.0	0.79	5
P4KE350CA-G	300.00	332.00	368.00	1	482.0	0.83	5
P4KE400C-G	324.00	360.00	440.00	1	574.0	0.70	5
P4KE400CA-G	342.00	380.00	420.00	1	548.0	0.73	5
P4KE440C-G	356.00	396.00	484.00	1	631.0	0.95	5
P4KE440CA-G	376.00	418.00	462.00	1	600.0	1.00	5

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.