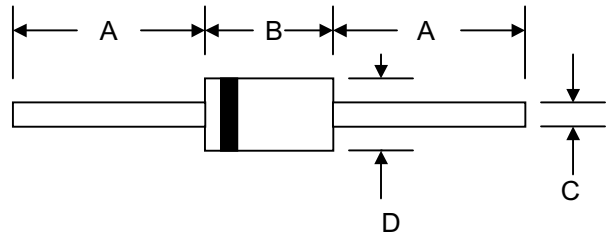


**Features**

- Glass Passivated Die Construction
- 600W 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-15 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: 0.40 grams (approx.)

DO-15				
Dim	Min	Max	Min	Max
A	25.4	—	1.000	—
B	5.50	7.62	0.217	0.300
C	0.71	0.864	0.028	0.034
D	2.60	3.60	0.102	0.142
	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** @ $T_A=25^{\circ}C$  unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A = 25^{\circ}C$ (Note 1, 2, 5) Figure 1	PPPM	600 Minimum	W
Peak Forward Surge Current per Figure 6 (Note 3)	IFSM	100	A
Peak Pulse Current on 10/1000 $\mu$ S Waveform (Note 1) Figure 3	IPPM	See Table 1	A
Steady State Power Dissipation (Note 2, 4)	PM(AV)	5.0	W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +175	$^{\circ}C$

- Note: 1. Non-repetitive current pulse, per Figure 3 and derated above  $T_A = 25^{\circ}C$  per Figure 2  
 2. Mounted on 40mm<sup>2</sup> copper pad  
 3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum  
 4. Lead temperature at  $75^{\circ}C = T_L$   
 5. Peak pulse power waveform is 10/1000 $\mu$ S



Fig. 1 Pulse Waveform

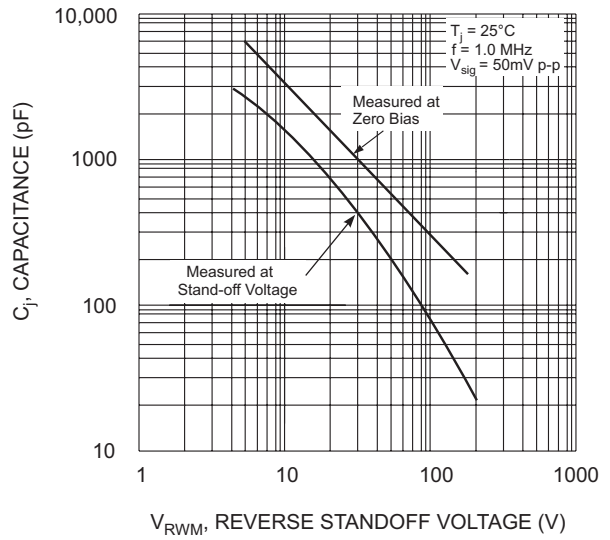


Fig. 2 Typical Junction Capacitance

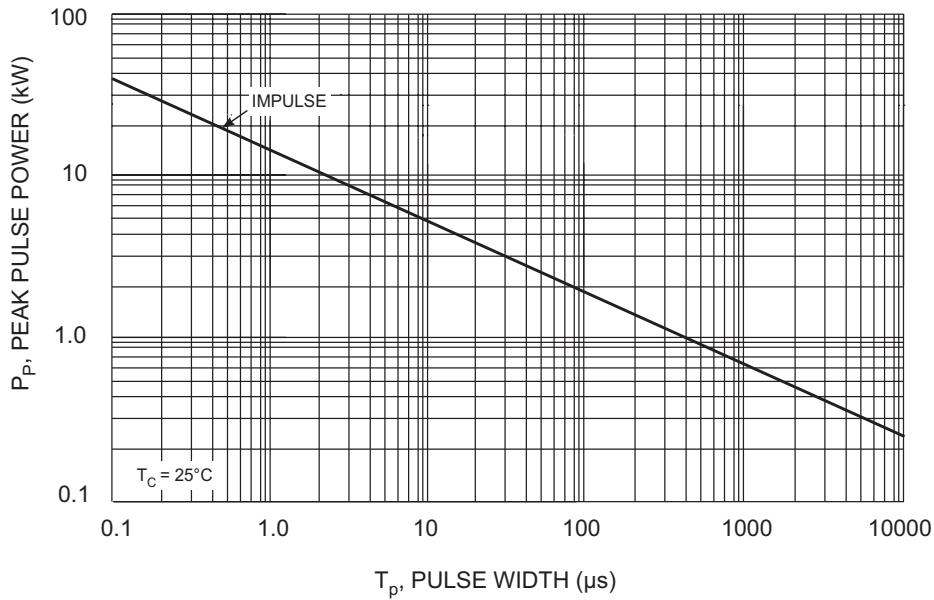


Fig. 3 Pulse Rating Curve



Fig. 4 Pulse Derating Curve

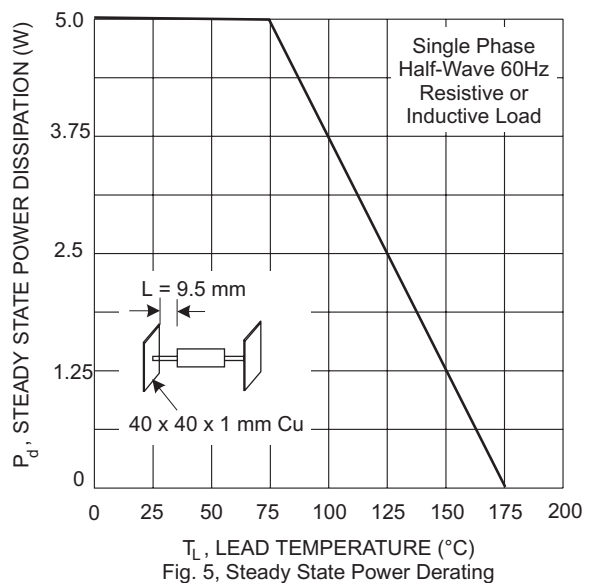


Fig. 5, Steady State Power Derating

## UNI-DIRECTIONAL 600 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)
P6KE6.8-G	5.50	6.12	7.48	10	10.8	56.00	1000
P6KE6.8A-G	5.80	6.45	7.14	10	10.5	57.00	1000
P6KE7.5-G	6.05	6.75	8.25	10	11.7	51.00	500
P6KE7.5A-G	6.40	7.13	7.88	10	11.3	53.00	500
P6KE8.2-G	6.63	7.38	9.02	10	12.5	48.00	200
P6KE8.2A-G	7.02	7.79	8.61	10	12.1	50.00	200
P6KE9.1-G	7.37	8.19	10.00	1	13.8	44.00	50
P6KE9.1A-G	7.78	8.65	9.50	1	13.4	45.00	50
P6KE10-G	8.10	9.00	11.00	1	15.0	40.00	10
P6KE10A-G	8.55	9.50	10.50	1	14.5	41.00	10
P6KE11-G	8.92	9.90	12.10	1	16.2	37.00	5
P6KE11A-G	9.40	10.50	11.60	1	15.6	38.00	5
P6KE12-G	9.72	10.80	13.20	1	17.3	35.00	5
P6KE12A-G	10.20	11.40	12.60	1	16.7	36.00	5
P6KE13-G	10.50	11.70	14.30	1	19.0	32.00	5
P6KE13A-G	11.10	12.40	13.70	1	18.2	33.00	5
P6KE15-G	12.10	13.50	16.50	1	22.0	27.00	5
P6KE15A-G	12.80	14.30	15.80	1	21.2	28.00	5
P6KE16-G	12.90	14.40	17.60	1	23.5	26.00	5
P6KE16A-G	13.60	15.20	16.80	1	22.5	27.00	5
P6KE18-G	14.50	16.20	19.80	1	26.5	23.00	5
P6KE18A-G	15.30	17.10	18.90	1	25.2	24.00	5
P6KE20-G	16.20	18.00	22.00	1	29.1	21.00	5
P6KE20A-G	17.10	19.00	21.00	1	27.7	22.00	5
P6KE22-G	17.80	19.80	24.20	1	31.9	19.00	5
P6KE22A-G	18.80	20.90	23.10	1	30.6	20.00	5
P6KE24-G	19.40	21.60	26.40	1	34.7	17.00	5
P6KE24A-G	20.50	22.80	25.20	1	33.2	18.00	5
P6KE27-G	21.80	24.30	29.70	1	39.1	15.00	5
P6KE27A-G	23.10	25.70	28.40	1	37.5	16.20	5
P6KE30-G	24.30	27.00	33.00	1	43.5	14.00	5
P6KE30A-G	25.60	28.50	31.50	1	41.4	14.00	5
P6KE33-G	26.80	29.70	36.30	1	47.7	12.60	5
P6KE33A-G	28.20	31.40	34.70	1	45.7	13.20	5
P6KE36-G	29.10	32.40	39.60	1	52.0	11.60	5
P6KE36A-G	30.80	34.20	37.80	1	49.9	12.00	5
P6KE39-G	31.60	35.10	42.90	1	56.4	10.60	5
P6KE39A-G	33.30	37.10	41.00	1	53.9	11.20	5
P6KE43-G	34.80	38.70	47.30	1	61.9	9.60	5
P6KE43A-G	36.80	40.90	45.20	1	59.3	10.10	5
P6KE47-G	38.10	42.30	51.70	1	67.8	8.90	5
P6KE47A-G	40.20	44.70	49.40	1	64.8	9.30	5
P6KE51-G	41.30	45.90	56.10	1	73.5	8.20	5
P6KE51A-G	43.60	48.50	53.60	1	70.1	8.60	5
P6KE56-G	45.60	50.40	61.60	1	80.5	7.40	5
P6KE56A-G	47.80	53.20	58.80	1	77.0	7.80	5
P6KE62-G	50.20	55.80	68.20	1	89.0	6.80	5
P6KE62A-G	53.00	58.90	65.10	1	85.0	7.10	5
P6KE68-G	55.10	61.20	74.80	1	98.0	6.10	5
P6KE68A-G	58.10	64.60	71.40	1	92.0	6.50	5
P6KE75-G	60.70	67.50	82.50	1	108.0	5.50	5
P6KE75A-G	64.10	71.30	78.80	1	103.0	5.80	5
P6KE82-G	66.40	73.80	90.20	1	118.0	5.10	5
P6KE82A-G	70.10	77.90	86.10	1	113.0	5.30	5
P6KE91-G	73.70	81.90	100.00	1	131.0	4.50	5
P6KE91A-G	77.80	86.50	95.50	1	125.0	4.80	5
P6KE100-G	81.00	90.00	110.00	1	144.0	4.20	5
P6KE100A-G	85.50	95.00	105.00	1	137.0	4.40	5
P6KE110-G	89.20	99.00	121.00	1	158.0	3.80	5
P6KE110A-G	94.00	105.00	116.00	1	152.0	4.00	5
P6KE120-G	97.20	108.00	132.00	1	173.0	3.50	5
P6KE120A-G	102.00	114.00	126.00	1	165.0	3.60	5
P6KE130-G	105.00	117.00	143.00	1	187.0	3.20	5
P6KE130A-G	111.00	124.00	137.00	1	179.0	3.30	5
P6KE150-G	121.00	135.00	165.00	1	215.0	2.80	5
P6KE150A-G	128.00	143.00	158.00	1	207.0	2.90	5
P6KE160-G	130.00	144.00	176.00	1	230.0	2.60	5
P6KE160A-G	136.00	152.00	168.00	1	219.0	2.70	5
P6KE170-G	138.00	153.00	187.00	1	244.0	2.50	5
P6KE170A-G	145.00	162.00	179.00	1	234.0	2.60	5
P6KE180-G	146.00	162.00	198.00	1	258.0	2.30	5
P6KE180A-G	154.00	171.00	189.00	1	246.0	2.40	5
P6KE200-G	162.00	180.00	220.00	1	287.0	2.10	5
P6KE200A-G	171.00	190.00	210.00	1	274.0	2.20	5
P6KE220-G	175.00	198.00	242.00	1	344.0	2.00	5
P6KE220A-G	185.00	209.00	231.00	1	328.0	2.00	5
P6KE250-G	202.00	225.00	275.00	1	360.0	2.00	5
P6KE250A-G	214.00	237.00	263.00	1	344.0	2.00	5
P6KE300-G	243.00	270.00	330.00	1	430.0	2.00	5
P6KE300A-G	256.00	285.00	315.00	1	414.0	2.00	5
P6KE350-G	284.00	315.00	385.00	1	504.0	2.00	5
P6KE350A-G	300.00	332.00	368.00	1	482.0	2.00	5
P6KE400-G	324.00	360.00	440.00	1	574.0	2.00	5
P6KE400A-G	342.00	380.00	420.00	1	548.0	2.00	5
P6KE440-G	356.00	396.00	484.00	1	631.0	2.00	5
P6KE440A-G	376.00	418.00	462.00	1	600.0	2.00	5

## BI-DIRECTIONAL 600 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)
P6KE6.8C-G	5.50	6.12	7.48	10	10.8	56.00	2000
P6KE6.8CA-G	5.80	6.45	7.14	10	10.5	57.00	2000
P6KE7.5C-G	6.05	6.75	8.25	10	11.7	51.00	1000
P6KE7.5CA-G	6.40	7.13	7.88	10	11.3	53.00	1000
P6KE8.2C-G	6.63	7.38	9.02	10	12.5	48.00	400
P6KE8.2CA-G	7.02	7.79	8.61	10	12.1	50.00	400
P6KE9.1C-G	7.37	8.19	10.00	1	13.8	44.00	100
P6KE9.1CA-G	7.78	8.65	9.50	1	13.4	45.00	100
P6KE10C-G	8.10	9.00	11.00	1	15.0	40.00	20
P6KE10CA-G	8.55	9.50	10.50	1	14.5	41.00	20
P6KE11C-G	8.92	9.90	12.10	1	16.2	37.00	10
P6KE11CA-G	9.40	10.50	11.60	1	15.6	38.00	10
P6KE12C-G	9.72	10.80	13.20	1	17.3	35.00	5
P6KE12CA-G	10.20	11.40	12.60	1	16.7	36.00	5
P6KE13C-G	10.50	11.70	14.30	1	19.0	32.00	5
P6KE13CA-G	11.10	12.40	13.70	1	18.2	33.00	5
P6KE15C-G	12.10	13.50	16.50	1	22.0	27.00	5
P6KE15CA-G	12.80	14.30	15.80	1	21.2	28.00	5
P6KE16C-G	12.90	14.40	17.60	1	23.5	26.00	5
P6KE16CA-G	13.60	15.20	16.80	1	22.5	27.00	5
P6KE18C-G	14.50	16.20	19.80	1	26.5	23.00	5
P6KE18CA-G	15.30	17.10	18.90	1	25.2	24.00	5
P6KE20C-G	16.20	18.00	22.00	1	29.1	21.00	5
P6KE20CA-G	17.10	19.00	21.00	1	27.7	22.00	5
P6KE22C-G	17.80	19.80	24.20	1	31.9	19.00	5
P6KE22CA-G	18.80	20.90	23.10	1	30.6	20.00	5
P6KE24C-G	19.40	21.60	26.40	1	34.7	17.00	5
P6KE24CA-G	20.50	22.80	25.20	1	33.2	18.00	5
P6KE27C-G	21.80	24.30	29.70	1	39.1	15.00	5
P6KE27CA-G	23.10	25.70	28.40	1	37.5	16.20	5
P6KE30C-G	24.30	27.00	33.00	1	43.5	14.00	5
P6KE30CA-G	25.60	28.50	31.50	1	41.4	14.00	5
P6KE33C-G	26.80	29.70	36.30	1	47.7	12.60	5
P6KE33CA-G	28.20	31.40	34.70	1	45.7	13.20	5
P6KE36C-G	29.10	32.40	39.60	1	52.0	11.60	5
P6KE36CA-G	30.80	34.20	37.80	1	49.9	12.00	5
P6KE39C-G	31.60	35.10	42.90	1	56.4	10.60	5
P6KE39CA-G	33.30	37.10	41.00	1	53.9	11.20	5
P6KE43C-G	34.80	38.70	47.30	1	61.9	9.60	5
P6KE43CA-G	36.80	40.90	45.20	1	59.3	10.10	5
P6KE47C-G	38.10	42.30	51.70	1	67.8	8.90	5
P6KE47CA-G	40.20	44.70	49.40	1	64.8	9.30	5
P6KE51C-G	41.30	45.90	56.10	1	73.5	8.20	5
P6KE51CA-G	43.60	48.50	53.60	1	70.1	8.60	5
P6KE56C-G	45.60	50.40	61.60	1	80.5	7.40	5
P6KE56CA-G	47.80	53.20	58.80	1	77.0	7.80	5
P6KE62C-G	50.20	55.80	68.20	1	89.0	6.80	5
P6KE62CA-G	53.00	58.90	65.10	1	85.0	7.10	5
P6KE68C-G	55.10	61.20	74.80	1	98.0	6.10	5
P6KE68CA-G	58.10	64.60	71.40	1	92.0	6.50	5
P6KE75C-G	60.70	67.50	82.50	1	108.0	5.50	5
P6KE75CA-G	64.10	71.30	78.80	1	103.0	5.80	5
P6KE82C-G	66.40	73.80	90.20	1	118.0	5.10	5
P6KE82CA-G	70.10	77.90	86.10	1	113.0	5.30	5
P6KE91C-G	73.70	81.90	100.00	1	131.0	4.50	5
P6KE91CA-G	77.80	86.50	95.50	1	125.0	4.80	5
P6KE100C-G	81.00	90.00	110.00	1	144.0	4.20	5
P6KE100CA-G	85.50	95.00	105.00	1	137.0	4.40	5
P6KE110C-G	89.20	99.00	121.00	1	158.0	3.80	5
P6KE110CA-G	94.00	105.00	116.00	1	152.0	4.00	5
P6KE120C-G	97.20	108.00	132.00	1	173.0	3.50	5
P6KE120CA-G	102.00	114.00	126.00	1	165.0	3.60	5
P6KE130C-G	105.00	117.00	143.00	1	187.0	3.20	5
P6KE130CA-G	111.00	124.00	137.00	1	179.0	3.30	5
P6KE150C-G	121.00	135.00	165.00	1	215.0	2.80	5
P6KE150CA-G	128.00	143.00	158.00	1	207.0	2.90	5
P6KE160C-G	130.00	144.00	176.00	1	230.0	2.60	5
P6KE160CA-G	136.00	152.00	168.00	1	219.0	2.70	5
P6KE170C-G	138.00	153.00	187.00	1	244.0	2.50	5
P6KE170CA-G	145.00	162.00	179.00	1	234.0	2.60	5
P6KE180C-G	146.00	162.00	198.00	1	258.0	2.30	5
P6KE180CA-G	154.00	171.00	189.00	1	246.0	2.40	5
P6KE200C-G	162.00	180.00	220.00	1	287.0	2.10	5
P6KE200CA-G	171.00	190.00	210.00	1	274.0	2.20	5
P6KE220C-G	175.00	198.00	242.00	1	344.0	2.00	5
P6KE220CA-G	185.00	209.00	231.00	1	328.0	2.00	5
P6KE250C-G	202.00	225.00	275.00	1	360.0	2.00	5
P6KE250CA-G	214.00	237.00	263.00	1	344.0	2.00	5
P6KE300C-G	243.00	270.00	330.00	1	430.0	2.00	5
P6KE300CA-G	256.00	285.00	315.00	1	414.0	2.00	5
P6KE350C-G	284.00	315.00	385.00	1	504.0	2.00	5
P6KE350CA-G	300.00	332.00	368.00	1	482.0	2.00	5
P6KE400C-G	324.00	360.00	440.00	1	574.0	2.00	5
P6KE400CA-G	342.00	380.00	420.00	1	548.0	2.00	5
P6KE440C-G	356.00	396.00	484.00	1	631.0	2.00	5
P6KE440CA-G	376.00	418.00	462.00	1	600.0	2.00	5

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