

Features

- Economical series
- Available in both unidirectional and bidirectional construction
- 6.8 to 440 stand-off volts available
- 600 watts peak pulse power dissipation

Mechanical Characteristics

- **CASE:** Void free transfer molded thermosetting plastic
- **FINISH:** Silver plated copper readily solderable.
- **POLARITY:** Banded denotes cathode. Bidirectional not marked.
- **WEIGHT:** 0.7 Gram(Appx.).
- **MOUNTING POSITION:** Any.

Maximum Ratings

Peak Pulse Power Dissipation at 25°C: 600Watts

Steady State Power Dissipation: 5 Watts at $T_L = +75^\circ\text{C}$

3/8" Lead Length

t_{clamping} (0 Volts to BV Min.):

Unidirectional $< 1 \times 10^{-12}$ Seconds; Bidirectional $< 5 \times 10^{-8}$ Seconds

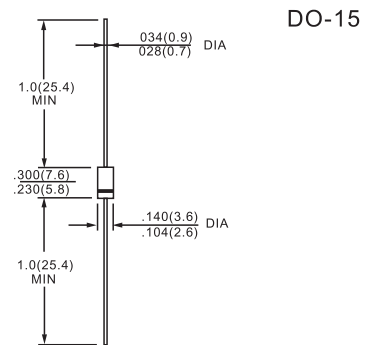
Operating and Storage Temperature: -55°C to $+150^\circ\text{C}$

APPLICATION

This TVS is an economical, molded, commercial product voltage-sensitive components from destruction or partial degradation. The response time of their clamping action is virtually instantaneous (1×10^{-12} seconds) and they have a peak pulse power rating of 600 watts for 1 ms as depicted in Figure 1 and 2. MCC also offers various varieties of TVS to meet higher and lower power demands and special applications.

NOTES: Forward Voltage (V_f) @ 150 amps peak, 8.3 msec sine wave equal to 3.5 volts max. (For unidirectional only)
For Bidirectional Construction, indicate a C or CA suffix after part number, i.e. P6KE440CA.

Capacitance will be 1/2 that shown in Figure 4.



Dimensions in inches and (millimeters)



TAYCHIPST

TRANSIENT VOLTAGE SUPPRESSORS

P6KE6.8 THRU P6KE440CA
600W

Part Number (Uni) 编号 (单向)	Part Number (Bi) 编号 (双向)	Reverse stand off voltage 反向 关闭电压	Breakdown voltage V _{BR} @I _T 击穿电 压 V _{BR} @I _T			Max voltage Temperature variation of V _{BR} 最大电压温度 变化比特率	Maximum clamping voltage V _C @I _{PP} 最大箝位电 压 V _C @I _{PP}	Maximum peak pulse current 最大峰值电流	Maximum reverse leakage @V _{RWM} 最大反向 电流@V _R			
			V _R	MIN	MAX					(mA)	V/T	I _R
			V								mV/°C	μA
P6KE6.8A*	P6KE6.8CA*	5.80	6.45	7.14	10.0	0.057	10.5	57.0	1000.0			
P6KE7.5A*	P6KE7.5CA*	6.40	7.13	7.88	10.0	0.061	11.3	53.0	500.0			
P6KE8.2A	P6KE8.2CA	7.02	7.79	8.61	10.0	0.065	12.1	50.0	200.0			
P6KE9.1A	P6KE9.1CA	7.78	8.65	9.55	1.0	0.068	13.4	45.0	50.0			
P6KE10A	P6KE10CA	8.55	9.50	10.50	1.0	0.073	14.5	41.0	10.0			
P6KE11A	P6KE11CA	9.40	10.50	11.60	1.0	0.075	15.6	38.0	5.0			
P6KE12A*	P6KE12CA*	10.20	11.40	12.60	1.0	0.078	16.7	36.0	5.0			
P6KE13A	P6KE13CA	11.10	12.40	13.70	1.0	0.081	18.2	33.0	5.0			
P6KE15A	P6KE15CA	12.80	14.30	15.80	1.0	0.084	21.2	28.0	5.0			
P6KE16A	P6KE16CA	13.60	15.20	16.80	1.0	0.086	22.5	27.0	5.0			
P6KE18A*	P6KE18CA*	15.30	17.10	18.90	1.0	0.088	25.2	24.0	5.0			
P6KE20A	P6KE20CA	17.10	19.00	21.00	1.0	0.090	27.7	22.0	5.0			
P6KE22A	P6KE22CA	18.80	20.90	23.10	1.0	0.092	30.6	20.0	5.0			
P6KE24A	P6KE24CA	20.50	22.80	25.20	1.0	0.094	33.2	18.0	5.0			
P6KE27A*	P6KE27CA*	23.10	25.70	28.40	1.0	0.096	37.5	16.0	5.0			
P6KE30A*	P6KE30CA*	25.60	28.50	31.50	1.0	0.097	41.4	14.0	5.0			
P6KE33A*	P6KE33CA	28.20	31.40	34.70	1.0	0.098	45.7	13.2	5.0			
P6KE36A*	P6KE36CA	30.80	34.20	37.80	1.0	0.099	49.9	12.0	5.0			
P6KE39A	P6KE39CA	33.30	37.10	41.00	1.0	0.100	53.9	11.2	5.0			
P6KE43A	P6KE43CA	36.80	40.90	45.20	1.0	0.101	59.3	10.1	5.0			
P6KE47A	P6KE47CA	40.20	44.70	49.40	1.0	0.101	64.8	9.3	5.0			
P6KE51A	P6KE51CA*	43.60	48.50	53.60	1.0	0.102	70.1	8.6	5.0			
P6KE56A	P6KE56CA	47.8	53.2	58.8	1.0	0.103	77.0	7.80	5.0			
P6KE62A	P6KE62CA	53.0	58.9	65.1	1.0	0.104	85.0	7.10	5.0			
P6KE68A	P6KE68CA*	58.1	64.6	71.4	1.0	0.104	92.0	6.50	5.0			
P6KE75A	P6KE75CA	64.1	71.3	78.8	1.0	0.105	103.0	5.80	5.0			
P6KE82A	P6KE82CA	70.1	77.9	86.1	1.0	0.105	113.0	5.30	5.0			
P6KE91A	P6KE91CA	77.8	86.5	95.5	1.0	0.106	125.0	4.80	5.0			
P6KE100A	P6KE100CA	85.5	95.0	105.0	1.0	0.106	137.0	4.40	5.0			
P6KE110A	P6KE110CA	94.0	105.0	116.0	1.0	0.107	152.0	4.00	5.0			
P6KE120A	P6KE120CA	102.0	114.0	126.0	1.0	0.107	165.0	3.60	5.0			
P6KE130A	P6KE130CA	111.0	124.0	137.0	1.0	0.107	179.0	3.30	5.0			
P6KE150A	P6KE150CA	128.0	143.0	158.0	1.0	0.108	207.0	2.90	5.0			
P6KE160A	P6KE160CA	136.0	152.0	168.0	1.0	0.108	219.0	2.70	5.0			
P6KE170A	P6KE170CA	145.0	162.0	179.0	1.0	0.108	234.0	2.60	5.0			
P6KE180A	P6KE180CA	154.0	171.0	189.0	1.0	0.108	246.0	2.40	5.0			
P6KE200A	P6KE200CA	171.0	190.0	210.0	1.0	0.108	274.0	2.20	5.0			
P6KE220A	P6KE220CA	185.0	209.0	231.0	1.0	0.108	328.0	1.83	5.0			
P6KE250A	P6KE250CA	214.0	237.0	263.0	1.0	0.110	344.0	1.75	5.0			
P6KE300A	P6KE300CA	256.0	285.0	315.0	1.0	0.110	414.0	1.45	5.0			
P6KE350A	P6KE350CA	300.0	332.0	368.0	1.0	0.110	482.0	1.25	5.0			
P6KE400A	P6KE400CA	342.0	380.0	420.0	1.0	0.110	548.0	1.10	5.0			
P6KE440A	P6KE440CA	376.0	418.0	462.0	1.0	0.110	602.0	1.00	5.0			



Figure 1

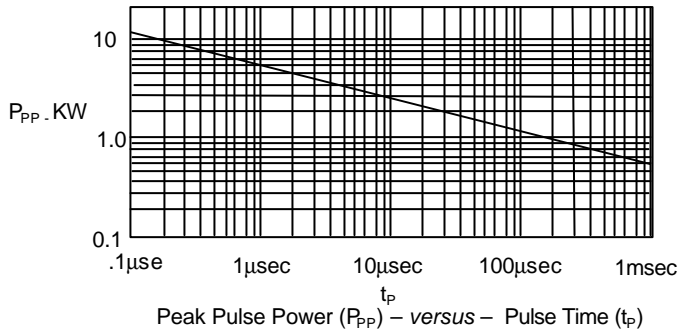
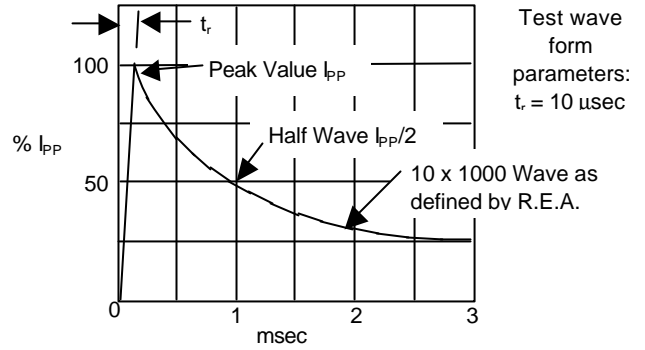


Figure 2 - Pulse Waveform



Peak Pulse Current ($\% I_{PP}$) - Versus - Time (t)

Figure 3 - Typical Capacitance

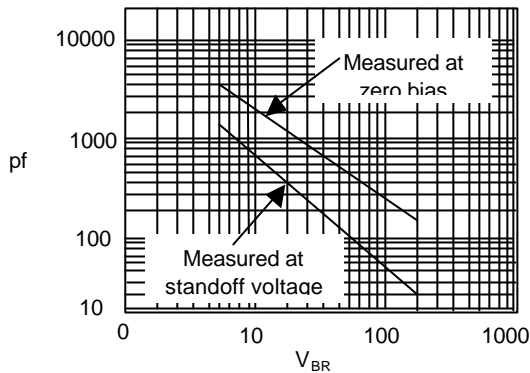


Figure 4 - Derating Curve

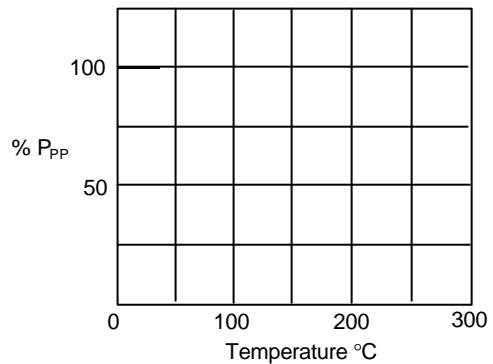


Fig. 5 Steady State Power Derating

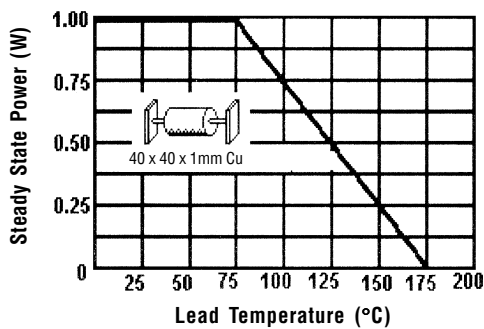


Fig. 6 Maximum Non-Repetitive Surge Current

