

600W SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS

FEATURES

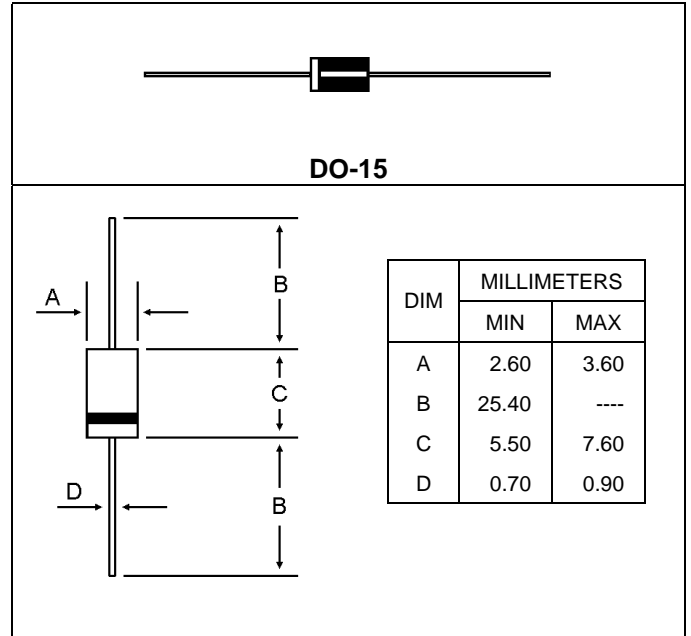
- * 600 Watt Peak Power Protection
- * Fast Response time
- * Excellent Clamping Capability
- * Glass Passivated Chip Construction
- * Plastic Case Material has UL Flammability Classification Rating 94V-O

MECHANICAL DATA

- * Case : Transfer Molded Epoxy
- * Terminals : Solderable Per MIL-STD-202 Method 208
- * Polarity : Cathode Band
- Marking :
 - Unidirectional : device code and cathode band
 - Bidirectional : device code only
- * Weight : 0.1 grams(approx)

Plating pb free

The marking is indicated by part no. + "M".
ex:P6KE6.8M-P6KE440M



MAXIMUM RATINGS

Characteristic	Symbol	VAULE	Unit
Peak Pulse Power Dissipation on 10/1000us waveform (note 1.2. FIG.1)	P_{PPM}	600	W
Peak Pulse Current on 10/1000us waveform (note 1. FIG.3)	I_{PPM}	SEE TABLE 1	A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load, (JEDEC Method) (note 2, 3)	I_{FSM}	200	A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +175	

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A = 25$ per Fig.2.
2. Mounted on 5.0 mm² copper land areas.
3. 8.3 ms single half sine-wave, or equivalent square wave, Duty cycle =4 pulses per minutes maximum

RATING AND CHARACTERISTIC CURVES P6KE SERIES

FIG-1 PEAK PULSE POWER RATING CURVE

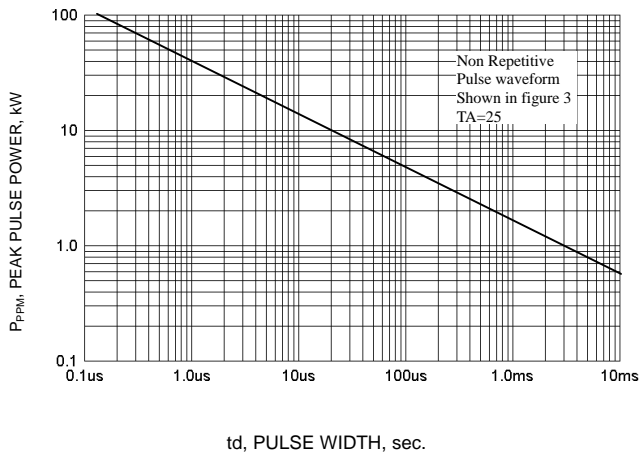


FIG-2 PULSE DERATING CURVE

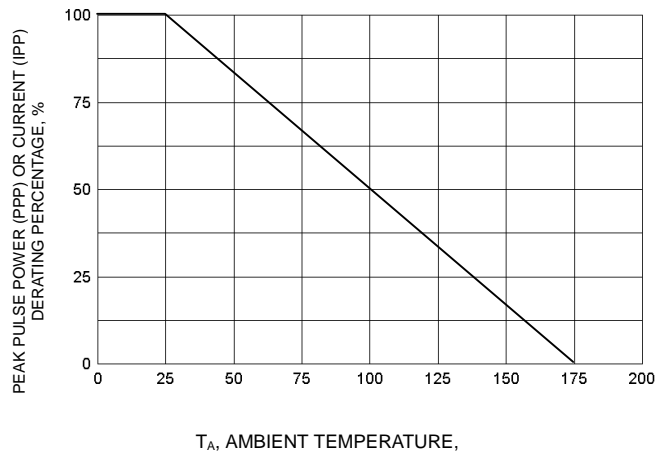


FIG-3 PULSE WAVEFORM

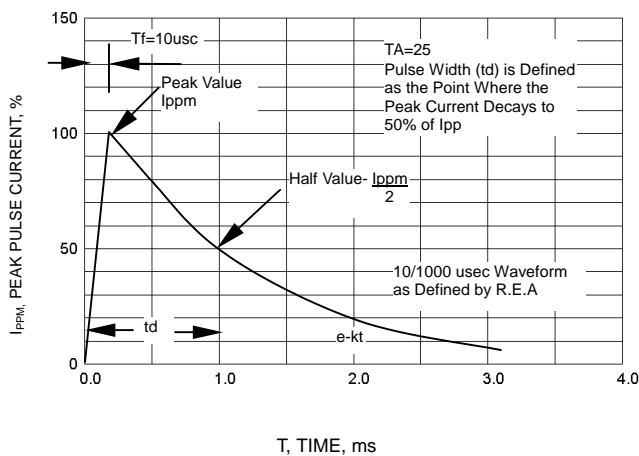


FIG-4 TYPICAL JUNCTION CAPACITANCE UMIDIRECTIONAL

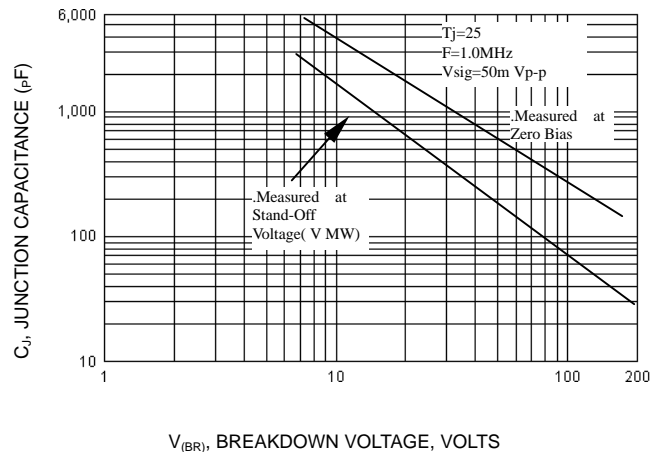


FIG-5 STEADY STATE POWER DERATING CURVE

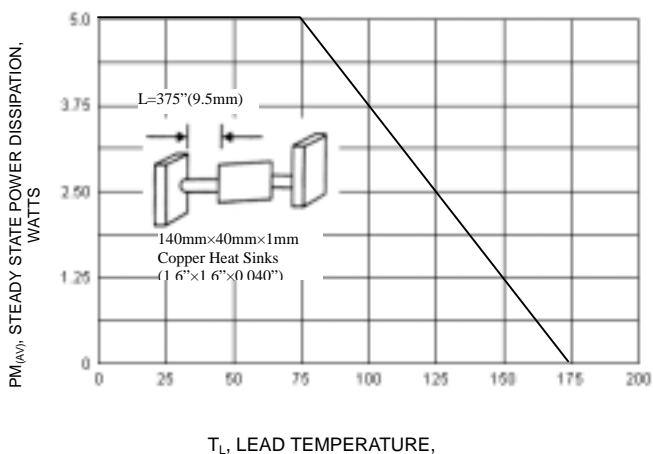
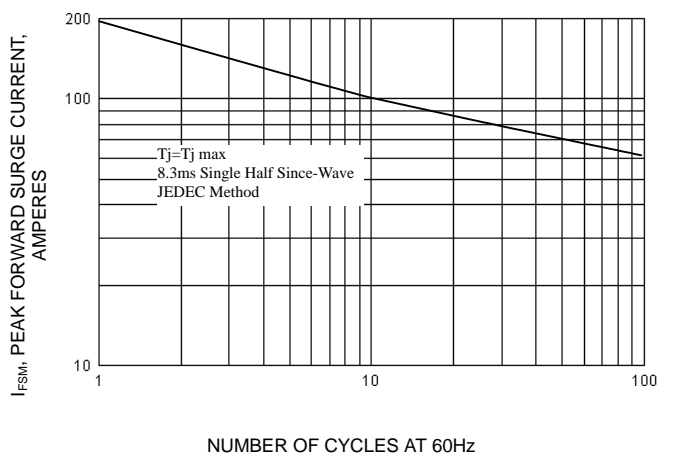


FIG-6 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNI-DIRECTIONAL



600 Watt Axial lead TVS

P6KE6.8/C ~P6KE110C/A

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 @I _{PP} V _C (V)	PEAK PULSE CURRENT @I _{PP} (A)	REVERSE LEAKAGE @ VRWM IR(uA)
P6KE6.8(C)	5.50	6.12	7.48	10	10.8	56	1000
P6KE6.8(C)A	5.80	6.45	7.14	10	10.5	57	1000
P6KE7.5(C)	6.05	6.75	8.25	10	11.7	51	500
P6KE7.5(C)A	6.40	7.13	7.88	10	11.3	53	500
P6KE8.2(C)	6.63	7.38	9.02	10	12.5	48	200
P6KE8.2(C)A	7.02	7.79	8.61	10	12.1	50	200
P6KE9.1(C)	7.37	8.19	10.00	1	13.8	44	50
P6KE9.1(C)A	7.78	8.65	9.50	1	13.4	45	50
P6KE10(C)	8.10	9.00	11.00	1	15.0	41	5
P6KE10(C)A	8.55	9.50	10.50	1	14.5	37	5
P6KE11(C)	8.92	9.90	12.10	1	16.2	38	5
P6KE11(C)A	9.40	10.50	11.60	1	15.6	37	5
P6KE12(C)	9.72	10.80	13.20	1	17.3	35	5
P6KE12(C)A	10.20	11.40	12.60	1	16.7	36	5
P6KE13(C)	10.50	11.70	14.30	1	19.0	32	5
P6KE13(C)A	11.10	12.40	13.70	1	18.2	33	5
P6KE15(C)	12.10	13.50	16.50	1	22.0	27	5
P6KE15(C)A	12.80	14.30	15.80	1	21.2	28	5
P6KE16(C)	12.90	14.40	17.60	1	23.5	26	5
P6KE16(C)A	13.60	15.20	16.80	1	22.5	27	5
P6KE18(C)	14.50	16.20	19.80	1	26.5	23	5
P6KE18(C)A	15.30	17.10	18.90	1	25.2	24	5
P6KE20(C)	16.20	18.00	22.00	1	29.1	21	5
P6KE20(C)A	17.10	19.00	21.00	1	27.7	22	5
P6KE22(C)	17.80	19.80	24.20	1	31.9	19	5
P6KE22(C)A	18.80	20.90	23.10	1	30.6	20	5
P6KE24(C)	19.40	21.60	26.40	1	34.7	17	5
P6KE24(C)A	20.50	22.80	25.20	1	33.2	18	5
P6KE27(C)	21.80	24.30	29.70	1	39.1	15	5
P6KE27(C)A	23.10	25.70	28.40	1	37.5	16	5
P6KE30(C)	24.30	27.00	33.00	1	43.5	14	5
P6KE30(C)A	25.60	28.50	31.50	1	41.4	14.4	5
P6KE33(C)	26.80	29.70	36.30	1	47.7	12.6	5
P6KE33(C)A	28.20	31.40	34.70	1	45.7	13.2	5
P6KE36(C)	29.10	32.40	39.60	1	52.0	11.6	5
P6KE36(C)A	30.80	34.20	37.80	1	49.9	12.0	5
P6KE39(C)	31.60	35.10	42.90	1	56.4	10.6	5
P6KE39(C)A	33.30	37.10	41.00	1	53.9	11.2	5
P6KE43(C)	34.80	38.70	47.30	1	61.9	9.6	5
P6KE43(C)A	36.80	40.90	45.20	1	59.3	10.1	5
P6KE47(C)	38.10	42.30	51.70	1	67.8	8.9	5
P6KE47(C)A	40.20	44.70	49.40	1	64.8	9.3	5
P6KE51(C)	41.30	45.90	56.10	1	73.5	8.2	5
P6KE51(C)A	43.60	48.50	53.60	1	70.1	8.6	5
P6KE56(C)	45.40	50.40	61.60	1	80.5	7.4	5
P6KE56(C)A	47.80	53.20	58.80	1	77.0	7.8	5
P6KE62(C)	50.20	55.80	68.20	1	89.0	6.8	5
P6KE62(C)A	53.00	58.90	65.10	1	85.0	7.1	5
P6KE68(C)	55.10	61.20	74.80	1	98.0	6.1	5
P6KE68(C)A	58.10	64.60	71.40	1	92.0	6.5	5
P6KE75(C)	60.70	67.50	82.50	1	108.0	5.5	5
P6KE75(C)A	64.10	71.30	78.80	1	103.0	5.8	5
P6KE82(C)	66.40	73.80	90.20	1	118.0	5.1	5
P6KE82(C)A	70.10	77.90	86.10	1	113.0	5.3	5
P6KE91(C)	73.70	81.90	100.00	1	131.0	4.6	5
P6KE91(C)A	77.80	86.50	95.50	1	125.0	4.8	5
P6KE100(C)	81.00	90.00	110.00	1	144.0	4.2	5
P6KE100(C)A	85.50	95.00	105.00	1	137.0	4.4	5
P6KE110(C)	89.20	99.00	121.00	1	158.0	3.8	5
P6KE110(C)A	94.00	105.00	116.00	1	152.0	4.0	5

600 Watt Axial lead TVS

P6KE120/C ~P6KE400C/A

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 @I _{PP} V _C (V)	PEAK PULSE CURRENT @I _{PP} (A)	REVERSE LEAKAGE @ VRWM IR(uA)
P6KE120(C)	97.2	108	132	1	173	3.5	5
P6KE120(C)A	102	114	126	1	165	3.6	5
P6KE130(C)	105	117	143	1	187	3.2	5
P6KE130(C)A	111	124	137	1	179	3.3	5
P6KE150(C)	121	135	165	1	215	2.8	5
P6KE150(C)A	128	143	158	1	207	2.9	5
P6KE160(C)	130	144	176	1	230	2.6	5
P6KE160(C)A	136	152	168	1	219	2.7	5
P6KE170(C)	138	153	187	1	244	2.5	5
P6KE170(C)A	145	162	179	1	234	2.6	5
P6KE180(C)	146	162	198	1	258	2.3	5
P6KE180(C)A	154	171	189	1	246	2.4	5
P6KE200(C)	162	180	220	1	287	2.1	5
P6KE200(C)A	171	190	210	1	274	2.2	5
P6KE220(C)	175	198	242	1	344	1.74	5
P6KE220(C)A	185	209	231	1	328	1.83	5
P6KE250(C)	202	225	275	1	360	1.67	5
P6KE250(C)A	214	237	267	1	344	1.74	5
P6KE300(C)	243	270	330	1	430	1.40	5
P6KE300(C)A	256	285	315	1	414	1.45	5
P6KE350(C)	284	315	385	1	504	1.19	5
P6KE350(C)A	300	332	368	1	482	1.24	5
P6KE400(C)	324	360	440	1	574	1.05	5
P6KE400(C)A	342	380	420	1	548	1.09	5

1. Suffix C denotes Bi-directional device, Suffix A denotes 5% tolerance device
no Suffix denotes tolerance device

2. BV measured with IT Current pulse=300us