

P6KE Series

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE - 6.8 TO 440 Volts

600Watt Peak Power 5.0 Watt Steady State

Feature

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- * Glass passivated chip junction in DO-15 package
- * 600W surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time: typically less than 1.0 ps from 0 volts to BV min
- * Typical IR less than 1μA above 10V
- * High temperature soldering guaranteed: 260 /10 seconds/.375", (9.5mm) lead length/5lbs., (2.3kg) tension

Mechanical Data

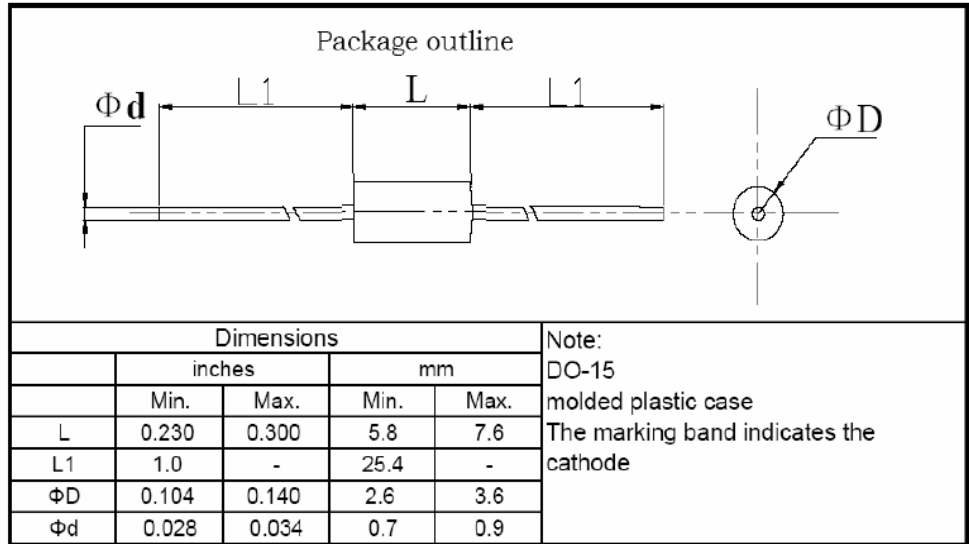
Case: JEDEC DO-15 molded plastic

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denoted cathode except Bipolar

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types P6KE6.8 thru types P6KE550

Electrical characteristics apply in both directions. marking code is all type.

1. Electrical Characteristic

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^\circ\text{C}$, $T_P=1\text{ms}$ (Note 1)	P_{PPM}	Minimum 600	Watts
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ Lead Lengths .375", (9.5mm) (Note 2)	$P_{M(AV)}$	5.0	Watts
Operating and Storage Temperature Range	T_J, T_{STG}	-50 to +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
2. Mounted on Copper Leaf area of 1.57in²(40mm²).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.



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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)	REVERSE LEAKAGE @VRWM IR (uA)
P6KE6.8C	5.5	6.12	7.48	10	10.8	1000
P6KE6.8CA	5.8	6.45	7.14	10	10.5	1000
P6KE7.5C	6.05	6.75	8.25	10	11.7	500
P6KE7.5CA	6.4	7.13	7.88	10	11.3	500
P6KE8.2C	6.63	7.38	9.02	10	12.5	200
P6KE8.2CA	7.02	7.79	8.61	10	12.1	200
P6KE9.1C	7.37	8.19	10	1	13.8	50
P6KE9.1CA	7.78	8.65	9.5	1	13.4	50
P6KE10C	8.1	9	11	1	15	10
P6KE10CA	8.55	9.5	10.5	1	14.5	10
P6KE11C	8.92	9.9	12.1	1	16.2	5
P6KE11CA	9.4	10.5	11.6	1	15.6	5
P6KE12C	9.72	10.8	13.2	1	17.3	5
P6KE12CA	10.2	11.4	12.6	1	16.7	5
P6KE13C	10.5	11.7	14.3	1	19	5
P6KE13CA	11.1	12.4	13.7	1	18.2	5
P6KE15C	12.1	13.5	16.5	1	22	5
P6KE15CA	12.8	14.3	15.8	1	21.2	5
P6KE16C	12.9	14.4	17.6	1	23.5	5
P6KE16CA	13.6	15.2	16.8	1	22.5	5
P6KE18C	14.5	16.2	19.8	1	26.5	5
P6KE18CA	15.3	17.1	18.9	1	25.2	5
P6KE20C	16.2	18	22	1	29.1	5
P6KE20CA	17.1	19	21	1	27.7	5
P6KE22C	17.8	19.8	24.2	1	31.9	5
P6KE22CA	18.8	20.9	23.1	1	30.6	5
P6KE24C	19.4	21.6	26.4	1	34.7	5
P6KE24CA	20.5	22.8	25.2	1	33.2	5
P6KE27C	21.8	24.3	29.7	1	39.1	5
P6KE27CA	23.1	25.7	28.4	1	37.5	5
P6KE30C	24.3	27	33	1	43.5	5
P6KE30CA	25.6	28.5	31.5	1	41.4	5
P6KE33C	26.8	29.7	36.3	1	47.7	5
P6KE33CA	28.2	31.4	34.7	1	45.7	5
P6KE36C	29.1	32.4	39.6	1	52	5
P6KE36CA	30.8	34.2	37.8	1	49.9	5
P6KE39C	31.6	35.1	42.9	1	56.4	5
P6KE39CA	33.3	37.1	41	1	53.9	5
P6KE43C	34.8	38.7	47.3	1	61.9	5
P6KE43CA	36.8	40.9	45.2	1	59.3	5
P6KE47C	38.1	42.3	51.7	1	67.8	5
P6KE47CA	40.2	44.7	49.4	1	64.8	5
P6KE51C	41.3	45.9	56.1	1	73.5	5
P6KE51CA	43.6	48.5	53.6	1	70.1	5
P6KE56C	45.6	50.4	61.6	1	80.5	5
P6KE56CA	47.8	53.2	58.8	1	77	5
P6KE62C	50.2	55.8	68.2	1	89	5
P6KE62CA	53	58.9	65.1	1	85	5
P6KE68C	55.1	61.2	74.8	1	98	5



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P6KE68CA	58.1	64.6	71.4	1	92	5
P6KE75C	60.7	67.5	82.5	1	108	5
P6KE75CA	64.1	71.3	78.8	1	103	5
P6KE82C	66.4	73.8	90.2	1	118	5
P6KE82CA	70.1	77.9	86.1	1	113	5
P6KE91C	73.7	81.9	100	1	131	5
P6KE91CA	77.8	86.5	95.5	1	125	5
P6KE100C	81	90	110	1	144	5
P6KE100CA	85.5	95	105	1	137	5
P6KE110C	89.2	99	121	1	158	5
P6KE110CA	94	105	116	1	152	5
P6KE120C	97.2	108	132	1	173	5
P6KE120CA	102	114	126	1	165	5
P6KE130C	105	117	143	1	187	5
P6KE130CA	111	124	137	1	179	5
P6KE150C	121	135	165	1	215	5
P6KE150CA	128	143	158	1	207	5
P6KE160C	130	144	176	1	230	5
P6KE160CA	136	152	168	1	219	5
P6KE170C	138	153	187	1	244	5
P6KE170CA	145	162	179	1	234	5
P6KE180C	146	162	198	1	258	5
P6KE180CA	154	171	189	1	246	5
P6KE200C	162	180	220	1	287	5
P6KE200CA	171	190	210	1	274	5
P6KE220C	175	198	242	1	344	5
P6KE220CA	185	209	231	1	328	5
P6KE250C	202	225	275	1	360	5
P6KE250CA	214	237	263	1	344	5
P6KE300C	243	270	330	1	430	5
P6KE300CA	256	285	315	1	414	5
P6KE350C	284	315	385	1	504	5
P6KE350CA	300	332	368	1	482	5
P6KE400C	324	360	440	1	574	5
P6KE400CA	342	380	420	1	548	5
P6KE440C	356	396	484	1	631	5
P6KE440CA	376	418	462	1	600	5

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above TA=25°C per Fig. 2.
2. Mounted on Copper Leaf area of 1.57in²(40mm²).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

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2. Characteristic Curves (TA = 25°C unless otherwise noted)

