

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

P6KE6.8A THRU P6KE440A  
P6KE6.8CA THRU P6KE440CA

GLASS PASSIVATED JUNCTION  
TRANSIENT VOLTAGE SUPPRESSOR  
600 WATTS, 6.8 THRU 440 VOLTS

JEDEC DO-15 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR P6KE Series types are Glass Passivated Junction Transient Voltage Suppressors designed to protect voltage sensitive components from high voltage transients. **THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.** Note: For bi-directional devices use "CA" Suffix, (Example: P6KE7.5CA).

## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL		UNITS
Peak Power Dissipation	P <sub>DM</sub>	600	W
Steady State Power Dissipation (T <sub>L</sub> =75°C)	P <sub>D</sub>	5.0	W
Peak Forward Surge Current (JEDEC Method)	I <sub>FSM</sub>	100	A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +175	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

TYPE NO.	BREAKDOWN VOLTAGE				REVERSE STAND-OFF VOLTAGE	MAXIMUM REVERSE LEAKAGE @ V <sub>RWM</sub>	MAXIMUM PEAK PULSE CURRENT	MAXIMUM CLAMPING VOLTAGE @ I <sub>PPM</sub>	MAXIMUM TEMPERATURE COEFFICIENT OF V <sub>BR</sub>
	V <sub>BR</sub>			@ I <sub>T</sub>					
	VOLTS								
	MIN	NOM	MAX						
			mA	VOLTS	μA	A	VOLTS	%/°C	
P6KE6.8A	6.45	6.8	7.14	10	5.80	1000	57	10.5	0.057
P6KE7.5A	7.13	7.5	7.88	10	6.40	500	53	11.3	0.061
P6KE8.2A	7.79	8.2	8.61	10	7.02	200	50	12.1	0.065
P6KE9.1A	8.65	9.1	9.55	1.0	7.78	50	45	13.4	0.068
P6KE10A	9.50	10	10.5	1.0	8.55	10	41	14.5	0.073
P6KE11A	10.5	11	11.6	1.0	9.40	5.0	38	15.6	0.075
P6KE12A	11.4	12	12.6	1.0	10.2	5.0	36	16.7	0.078
P6KE13A	12.4	13	13.7	1.0	11.1	5.0	33	18.2	0.081
P6KE15A	14.3	15	15.8	1.0	12.8	5.0	28	21.2	0.084
P6KE16A	15.2	16	16.8	1.0	13.6	5.0	27	22.5	0.086

ELECTRICAL CHARACTERISTICS Continued

TYPE NO.	BREAKDOWN VOLTAGE				REVERSE STAND-OFF VOLTAGE	MAXIMUM REVERSE LEAKAGE @ $V_{RWM}$	MAXIMUM PEAK PULSE CURRENT	MAXIMUM CLAMPING VOLTAGE @ $I_{PPM}$	MAXIMUM TEMPERATURE COEFFICIENT OF $V_{BR}$
	$V_{BR}$			@ $I_T$					
	VOLTS				$V_{RWM}$				
	MIN	NOM	MAX	mA	VOLTS	$I_R$ $\mu A$	A	$V_C$ VOLTS	%/°C
P6KE18A	17.1	18	18.9	1.0	15.3	5.0	24	25.2	0.088
P6KE20A	19.0	20	21.0	1.0	17.1	5.0	22	27.7	0.090
P6KE22A	20.9	22	23.1	1.0	18.8	5.0	20	30.6	0.092
P6KE24A	22.8	24	25.2	1.0	20.5	5.0	18	33.2	0.094
P6KE27A	25.7	27	28.4	1.0	23.1	5.0	16	37.5	0.096
P6KE30A	28.5	30	31.5	1.0	25.6	5.0	14.4	41.4	0.097
P6KE33A	31.4	33	34.7	1.0	28.2	5.0	13.2	45.7	0.098
P6KE36A	34.2	36	37.8	1.0	30.8	5.0	12.0	49.9	0.099
P6KE39A	37.1	39	41.0	1.0	33.3	5.0	11.2	53.9	0.100
P6KE43A	40.9	43	45.2	1.0	36.8	5.0	10.1	59.3	0.101
P6KE47A	44.7	47	49.4	1.0	40.2	5.0	9.3	64.8	0.101
P6KE51A	48.5	51	53.6	1.0	43.6	5.0	8.6	70.1	0.102
P6KE56A	53.2	56	58.8	1.0	47.8	5.0	7.8	77.0	0.103
P6KE62A	58.9	62	65.1	1.0	53.0	5.0	7.1	85.0	0.104
P6KE68A	64.6	68	71.4	1.0	58.1	5.0	6.5	92.0	0.104
P6KE75A	71.3	75	78.8	1.0	64.1	5.0	5.8	103	0.105
P6KE82A	77.9	82	86.1	1.0	70.1	5.0	5.3	113	0.105
P6KE91A	86.5	91	95.5	1.0	77.8	5.0	4.8	125	0.106
P6KE100A	95.0	100	105	1.0	85.5	5.0	4.4	137	0.106
P6KE110A	105	110	116	1.0	94.0	5.0	4.0	152	0.107
P6KE120A	114	120	126	1.0	102	5.0	3.6	165	0.107
P6KE130A	124	130	137	1.0	111	5.0	3.3	179	0.107
P6KE150A	143	150	158	1.0	128	5.0	2.9	207	0.108
P6KE160A	152	160	168	1.0	136	5.0	2.7	219	0.108
P6KE170A	162	170	179	1.0	145	5.0	2.6	234	0.108
P6KE180A	171	180	189	1.0	154	5.0	2.4	246	0.108
P6KE200A	190	200	210	1.0	171	5.0	2.2	274	0.108
P6KE220A	209	220	231	1.0	185	5.0	2.0	328	0.108
P6KE250A	237	250	263	1.0	214	5.0	2.0	344	0.110
P6KE300A	285	300	315	1.0	256	5.0	2.0	414	0.110
P6KE350A	332	350	368	1.0	300	5.0	2.0	482	0.110
P6KE400A	380	400	420	1.0	342	5.0	2.0	548	0.110
P6KE440A	418	440	462	1.0	376	5.0	2.0	600	0.110