

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified.)

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Co-efficient of VBR	
	VBR (V)							It
	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)
P6KE6.8	6.12	7.48	10	5.50	1000	55.5	10.8	0.057
P6KE6.8A	6.45	7.14	10	5.80	1000	57.0	10.5	0.057
P6KE7.5	6.75	8.25	10	6.05	500	51.0	11.7	0.061
P6KE7.5A	7.13	7.88	10	6.40	500	53.0	11.3	0.061
P6KE8.2	7.38	9.02	10	6.63	200	48.0	12.5	0.065
P6KE8.2A	7.79	8.61	10	7.02	200	50.0	12.1	0.065
P6KE8.5	7.65	9.35	10	6.89	200	46.0	13.0	0.067
P6KE8.5A	8.08	8.93	10	7.27	200	47.0	12.7	0.067
P6KE9.1	8.19	10.0	1.0	7.37	150	44.0	13.8	0.068
P6KE9.1A	8.65	9.55	1.0	7.78	150	45.0	13.4	0.068
P6KE10	9.00	11.0	1.0	8.10	150	40.0	15.0	0.073
P6KE10A	9.50	10.5	1.0	8.55	150	41.0	14.5	0.073
P6KE11	9.90	12.1	1.0	8.92	150	37.0	16.2	0.075
P6KE11A	10.5	11.6	1.0	9.40	150	38.0	15.6	0.075
P6KE12	10.8	13.2	1.0	9.72	5.0	35.0	17.3	0.078
P6KE12A	11.4	12.6	1.0	10.2	5.0	36.0	16.7	0.078
P6KE13	11.7	14.3	1.0	10.5	5.0	32.0	19.0	0.081
P6KE13A	12.4	13.7	1.0	11.1	5.0	33.0	18.2	0.081
P6KE15	13.5	16.5	1.0	12.1	5.0	27.0	22.0	0.084
P6KE15A	14.3	15.8	1.0	12.8	5.0	28.0	21.2	0.084
P6KE16	14.4	17.6	1.0	12.9	5.0	26.0	23.5	0.086
P6KE16A	15.2	16.8	1.0	13.6	5.0	27.0	22.5	0.086
P6KE18	16.2	19.8	1.0	14.5	5.0	23.0	26.5	0.088
P6KE18A	17.1	18.9	1.0	15.3	5.0	24.0	25.2	0.088
P6KE20	18.0	22.0	1.0	16.2	5.0	21.0	29.1	0.090
P6KE20A	19.0	21.0	1.0	17.1	5.0	22.0	27.7	0.090
P6KE22	19.8	24.2	1.0	17.8	5.0	19.0	31.9	0.092
P6KE22A	20.9	23.1	1.0	18.8	5.0	20.0	30.6	0.092
P6KE24	21.6	26.4	1.0	19.4	5.0	17.0	34.7	0.094
P6KE24A	22.8	25.2	1.0	20.5	5.0	18.0	33.2	0.094
P6KE27	24.3	29.7	1.0	21.8	5.0	15.0	39.1	0.096
P6KE27A	25.7	28.4	1.0	23.1	5.0	16.0	37.5	0.096
P6KE28	25.2	30.8	1.0	22.7	5.0	15.0	40	0.096
P6KE28A	26.6	29.4	1.0	23.9	5.0	15.5	38.7	0.096
P6KE30	27.0	33.0	1.0	24.3	5.0	14.0	43.5	0.097
P6KE30A	28.5	31.5	1.0	25.6	5.0	14.4	41.4	0.097
P6KE33	29.7	36.3	1.0	26.8	5.0	12.6	47.7	0.098
P6KE33A	31.4	34.7	1.0	28.2	5.0	13.2	45.7	0.098
P6KE36	32.4	39.6	1.0	29.1	5.0	11.6	52.0	0.099
P6KE36A	34.2	37.8	1.0	30.8	5.0	12.0	49.9	0.099
P6KE39	35.1	42.9	1.0	31.6	5.0	10.6	56.4	0.100
P6KE39A	37.1	41.0	1.0	33.3	5.0	11.2	53.9	0.100
P6KE43	38.7	47.3	1.0	34.8	5.0	9.6	61.9	0.101
P6KE43A	40.9	45.2	1.0	36.8	5.0	10.1	59.3	0.101
P6KE47	42.3	51.7	1.0	38.1	5.0	8.9	67.8	0.101
P6KE47A	44.7	49.4	1.0	40.2	5.0	9.3	64.8	0.101
P6KE51	45.9	56.1	1.0	41.3	5.0	8.2	73.5	0.102
P6KE51A	48.5	53.6	1.0	43.6	5.0	8.6	70.1	0.102
P6KE56	50.4	61.6	1.0	45.4	5.0	7.4	80.5	0.103
P6KE56A	53.2	58.8	1.0	47.8	5.0	7.8	77.0	0.103
P6KE62	55.8	68.2	1.0	50.2	5.0	6.8	89.0	0.104
P6KE62A	58.9	65.1	1.0	53.0	5.0	7.1	85.0	0.104
P6KE68	61.2	74.8	1.0	55.1	5.0	6.1	98.0	0.104
P6KE68A	64.6	71.4	1.0	58.1	5.0	6.5	92.0	0.104

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	VBR (V)		It						VRWM	IR	IRSM	VRSM
	Min.	Max.	(mA)						(V)	(μA)	(A)	(V)
P6KE75	67.5	82.5	1.0	60.7	5.0	5.5	108	0.105				
P6KE75A	71.3	78.8	1.0	64.1	5.0	5.8	103	0.105				
P6KE82	73.8	90.2	1.0	66.4	5.0	5.1	118	0.105				
P6KE82A	77.9	86.1	1.0	70.1	5.0	5.3	113	0.105				
P6KE91	81.9	100.0	1.0	73.7	5.0	4.5	131	0.106				
P6KE91A	86.5	95.5	1.0	77.8	5.0	4.8	125	0.106				
P6KE100	90.0	110.0	1.0	81.0	5.0	4.2	144	0.106				
P6KE100A	95.0	105.0	1.0	85.5	5.0	4.4	137	0.106				
P6KE110	99.0	121.0	1.0	89.2	5.0	3.8	158	0.107				
P6KE110A	105.0	116.0	1.0	94.0	5.0	4.0	152	0.107				
P6KE120	108.0	132.0	1.0	97.2	5.0	3.5	173	0.107				
P6KE120A	114.0	126.0	1.0	102	5.0	3.6	165	0.107				
P6KE130	117.0	143.0	1.0	106	5.0	3.2	187	0.107				
P6KE130A	124.0	137.0	1.0	111	5.0	3.3	179	0.107				
P6KE150	135.0	165.0	1.0	121	5.0	2.8	215	0.108				
P6KE150A	143.0	158.0	1.0	128	5.0	2.9	207	0.108				
P6KE160	144.0	176.0	1.0	130	5.0	2.6	230	0.108				
P6KE160A	152.0	168.0	1.0	136	5.0	2.7	219	0.108				
P6KE170	153.0	187.0	1.0	138	5.0	2.5	244	0.108				
P6KE170A	162.0	179.0	1.0	145	5.0	2.6	234	0.108				
P6KE180	162.0	198.0	1.0	146	5.0	2.3	258	0.108				
P6KE180A	171.0	189.0	1.0	154	5.0	2.4	246	0.108				
P6KE200	180.0	220.0	1.0	162	5.0	2.1	287	0.108				
P6KE200A	190.0	210.0	1.0	171	5.0	2.2	274	0.108				
P6KE220	198.0	242.0	1.0	175	5.0	1.75	344	0.108				
P6KE220A	209.0	231.0	1.0	185	5.0	1.83	328	0.108				
P6KE250	225.0	275.0	1.0	202	5.0	1.67	360	0.110				
P6KE250A	237.0	263.0	1.0	214	5.0	1.75	344	0.110				
P6KE300	270.0	330.0	1.0	243	5.0	1.40	430	0.110				
P6KE300A	285.0	315.0	1.0	256	5.0	1.45	414	0.110				
P6KE320	288.0	352.0	1.0	259	5.0	1.31	460	0.110				
P6KE320A	303.0	337.0	1.0	272	5.0	1.35	445	0.110				
P6KE350	315.0	385.0	1.0	284	5.0	1.20	504	0.110				
P6KE350A	332.0	368.0	1.0	300	5.0	1.25	482	0.110				
P6KE400	360.0	440.0	1.0	324	5.0	1.05	574	0.110				
P6KE400A	380.0	420.0	1.0	342	5.0	1.10	548	0.110				
P6KE440	396.0	484.0	1.0	356	5.0	0.95	631	0.110				
P6KE440A	418.0	462.0	1.0	376	5.0	1.00	602	0.110				
P6KE480	432.0	528.0	1.0	389	5.0	0.88	686	0.110				
P6KE480A	456.0	504.0	1.0	408	5.0	0.90	658	0.110				
P6KE510	459.0	561.0	1.0	413	5.0	0.82	729	0.110				
P6KE510A	485.0	535.0	1.0	434	5.0	0.86	698	0.110				
P6KE530	477.0	583.0	1.0	457	5.0	0.76	798	0.110				
P6KE530A	503.5	556.5	1.0	477	5.0	0.80	725	0.110				
P6KE540	486.0	594.0	1.0	437	5.0	0.78	772	0.110				
P6KE540A	513.0	567.0	1.0	459	5.0	0.81	740	0.110				
P6KE550	495.0	605.0	1.0	470	5.0	0.76	836	0.110				
P6KE550A	522.5	577.5	1.0	495	5.0	0.80	760	0.110				
P6KE600	540.0	660.0	1.0	490	5.0	0.71	911	0.110				
P6KE600A	570.0	630.0	1.0	512	5.0	0.75	828	0.110				

Notes : (1) VBR measured after It applied for 300 μs., It = square wave pulse or equivalent.

(2) VF = 3.5 Vmax., IF = 50 Amps. (6.8 Volts thru 91 Volts); VF = 5.0 Vmax., IF = 50 Amps. (100 Volts thru 440 Volts)
add VF = 6.5 Vmax. IF = 50 Amps (480 Volts thru 600 Volts). PW = 8.3 ms, duty cycle = 4 pulses per minute maximum.

(3) For Bipolar types moving VR of 10 Volts and under, the IR limit is doubled.

(4) "6KE" will be omitted in marking on the diode.

RATING AND CHARACTERISTIC CURVES (P6KE SERIES)

FIG.1 - PULSE DERATING CURVE

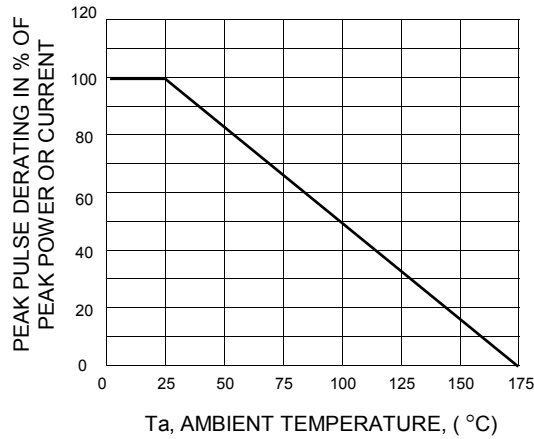


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT (Unidirectional only)

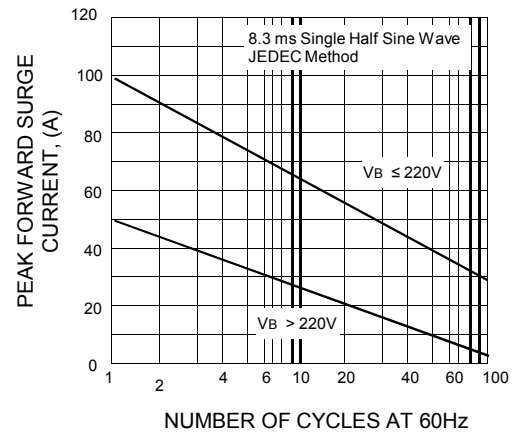


FIG.3 - STEADY STATE POWER DERATING

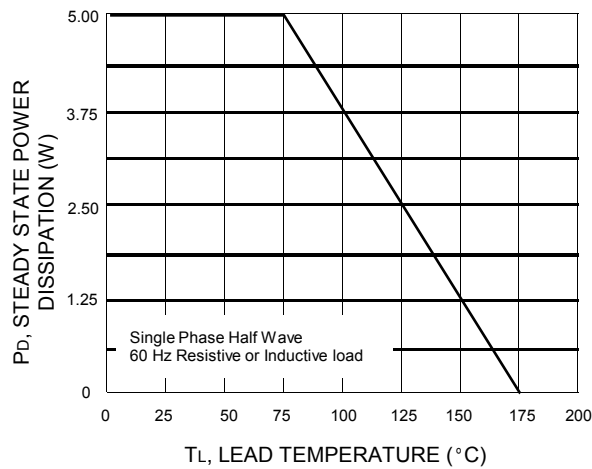


FIG.4 - PULSE RATING CURVE

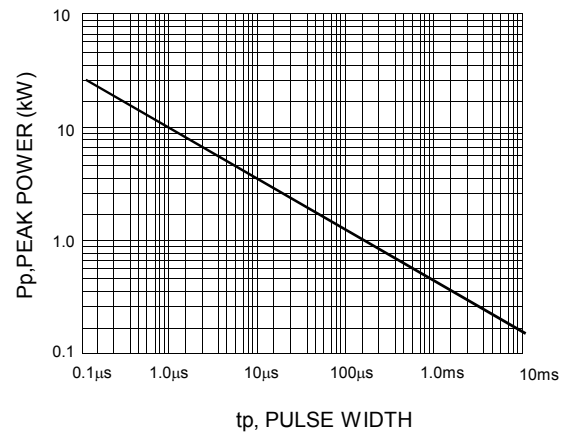


FIG.5 - PULSE WAVEFORM

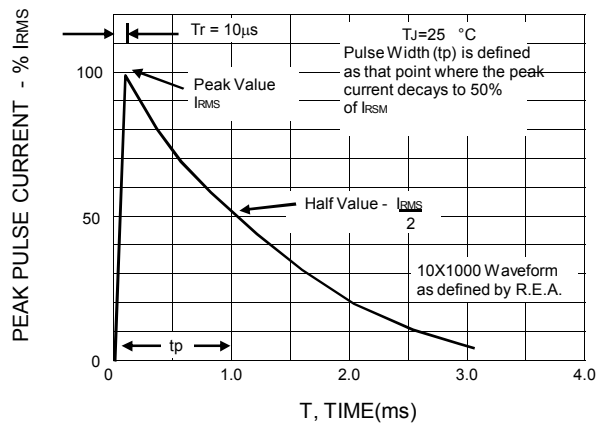


FIG. 6 - TYPICAL JUNCTION CAPACITANCE UNI-DIRECTIONAL

