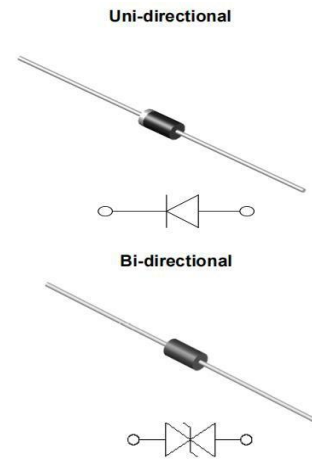


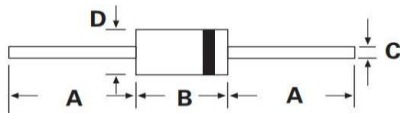
Product : P6KE AU Series

Feature

- Excellent clamping capability
- 600W peak pulse power capability on 10/1000µs waveform
- Low dynamic inductance
- Fast response time
- High temperature soldering guaranteed: 265°C/10 seconds
- Component in accordance to RoHS
- AEC-Q101
- DO-204AC(DO-15) packaging



Dimension Figure



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	25.4	-	1	-
B	5.5	7.7	0.217	0.276
C	0.65	0.9	0.026	0.035
D	2.6	3.6	0.102	0.142

Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ by 10x1000µs waveform	P_{PPM}	600	W
Power Dissipation on infinite heat sink at $T_A=50^{\circ}\text{C}$	$P_{M(AV)}$	5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	I_{FSM}	100	A
Maximum Instantaneous Forward Voltage at 0.2A for Unidirectional	V_F	1.2	V
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$

Electrical Characteristics

P/N		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR (μ A)		Ipp (A)	VC@ Ipp (V)
Uni	Bi		MIN	MAX		Uni	Bi		
P6KE6.8A-AU	P6KE6.8CA-AU	5.8	6.45	7.14	10	200	400	58.1	10.5
P6KE7.5A-AU	P6KE7.5CA-AU	6.4	7.13	7.88	10	200	400	54.0	11.3
P6KE8.2A-AU	P6KE8.2CA-AU	7.02	7.79	8.61	10	50	100	50.4	12.1
P6KE9.1A-AU	P6KE9.1CA-AU	7.78	8.65	9.55	1	5	40	45.5	13.4
P6KE10A-AU	P6KE10CA-AU	8.55	9.5	10.5	1	2	8	42.1	14.5
P6KE11A-AU	P6KE11CA-AU	9.4	10.5	11.6	1	1.0	2.5	39.1	15.6
P6KE12A-AU	P6KE12CA-AU	10.2	11.4	12.6	1	1.0	1.0	36.5	16.7
P6KE13A-AU	P6KE13CA-AU	11.1	12.4	13.7	1	1.0	1.0	33.5	18.2
P6KE15A-AU	P6KE15CA-AU	12.8	14.3	15.8	1	1.0	1.0	28.8	21.2
P6KE16A-AU	P6KE16CA-AU	13.6	15.2	16.8	1	1.0	1.0	27.1	22.5
P6KE18A-AU	P6KE18CA-AU	15.3	17.1	18.9	1	1.0	1.0	24.2	25.2
P6KE20A-AU	P6KE20CA-AU	17.1	19	21	1	1.0	1.0	22.0	27.7
P6KE22A-AU	P6KE22CA-AU	18.8	20.9	23.1	1	1.0	1.0	19.9	30.6
P6KE24A-AU	P6KE24CA-AU	20.5	22.8	25.2	1	1.0	1.0	18.4	33.2
P6KE27A-AU	P6KE27CA-AU	23.1	25.7	28.4	1	1.0	1.0	16.3	37.5
P6KE30A-AU	P6KE30CA-AU	25.6	28.5	31.5	1	1.0	1.0	14.7	41.4
P6KE33A-AU	P6KE33CA-AU	28.2	31.4	34.7	1	1.0	1.0	13.3	45.7
P6KE36A-AU	P6KE36CA-AU	30.8	34.2	37.8	1	1.0	1.0	12.2	49.9
P6KE39A-AU	P6KE39CA-AU	33.3	37.1	41	1	1.0	1.0	11.3	53.9
P6KE43A-AU	P6KE43CA-AU	36.8	40.9	45.2	1	1.0	1.0	10.3	59.3
P6KE47A-AU	P6KE47CA-AU	40.2	44.7	49.4	1	1.0	1.0	9.4	64.8
P6KE51A-AU	P6KE51CA-AU	43.6	48.5	53.6	1	1.0	1.0	8.7	70.1
P6KE56A-AU	P6KE56CA-AU	47.8	53.2	58.8	1	1.0	1.0	7.9	77
P6KE62A-AU	P6KE62CA-AU	53	58.9	65.1	1	1.0	1.0	7.2	85
P6KE68A-AU	P6KE68CA-AU	58.1	64.6	71.4	1	1.0	1.0	6.6	92
P6KE75A-AU	P6KE75CA-AU	64.1	71.3	78.8	1	1.0	1.0	5.9	103
P6KE82A-AU	P6KE82CA-AU	70.1	77.9	86.1	1	1.0	1.0	5.4	113
P6KE91A-AU	P6KE91CA-AU	77.8	86.5	95.5	1	1.0	1.0	4.9	125
P6KE100A-AU	P6KE100CA-AU	85.5	95	105	1	1.0	1.0	4.5	137
P6KE110A-AU	P6KE110CA-AU	94	105	116	1	1.0	1.0	4.0	152
P6KE120A-AU	P6KE120CA-AU	102	114	126	1	1.0	1.0	3.7	165
P6KE130A-AU	P6KE130CA-AU	111	124	137	1	1.0	1.0	3.4	179
P6KE150A-AU	P6KE150CA-AU	128	143	158	1	1.0	1.0	2.9	207
P6KE160A-AU	P6KE160CA-AU	136	152	168	1	1.0	1.0	2.8	219
P6KE170A-AU	P6KE170CA-AU	145	162	179	1	1.0	1.0	2.6	234
P6KE180A-AU	P6KE180CA-AU	154	171	189	1	1.0	1.0	2.5	246
P6KE200A-AU	P6KE200CA-AU	171	190	210	1	1.0	1.0	2.2	274
P6KE220A-AU	P6KE220CA-AU	185	209	231	1	1.0	1.0	1.9	328
P6KE250A-AU	P6KE250CA-AU	214	237	263	1	1.0	1.0	1.8	344
P6KE300A-AU	P6KE300CA-AU	256	285	315	1	1.0	1.0	1.5	414
P6KE350A-AU	P6KE350CA-AU	300	332	368	1	1.0	1.0	1.3	482
P6KE400A-AU	P6KE400CA-AU	342	380	420	1	1.0	1.0	1.1	548
P6KE440A-AU	P6KE440CA-AU	376	418	462	1	1.0	1.0	1.0	602
P6KE480A-AU	P6KE480CA-AU	408	456	504	1	1.0	1.0	0.9	658
P6KE510A-AU	P6KE510CA-AU	434	485	535	1	1.0	1.0	0.9	698
P6KE530A-AU	P6KE530CA-AU	477	503.5	556.5	1	1.0	1.0	0.8	725
P6KE540A-AU	P6KE540CA-AU	486	513	567	1	1.0	1.0	0.8	740
P6KE550A-AU	P6KE550CA-AU	495	522.5	577.5	1	1.0	1.0	0.8	760
P6KE600A-AU	P6KE600CA-AU	512	570	630	1	1.0	1.0	0.8	828

Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

Figure 1 - Peak Pulse Power Rating Curve

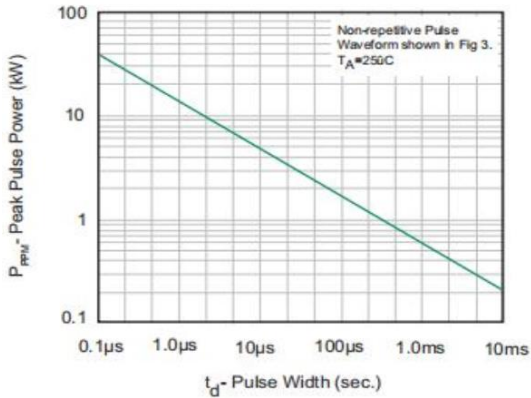


Figure 2 - Pulse Derating Curve

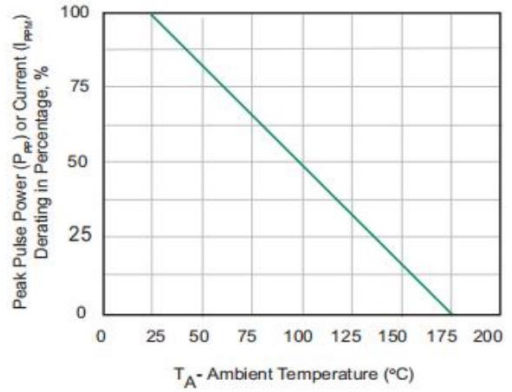


Figure 3 - Pulse Waveform

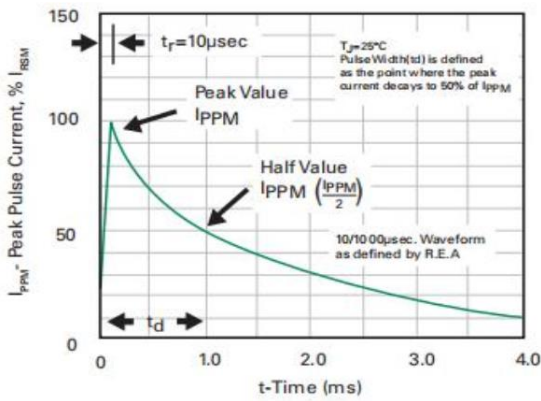


Figure 4 - Typical Junction Capacitance

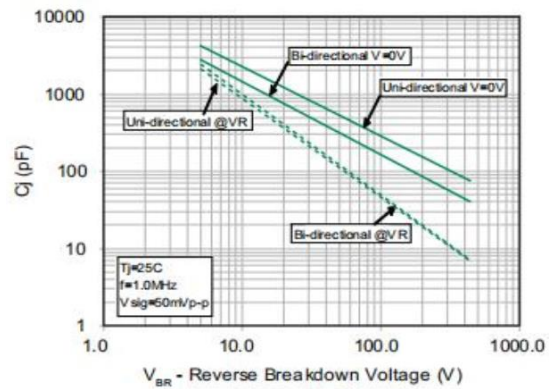


Figure 5 - Steady State Power Dissipation Derating Curve

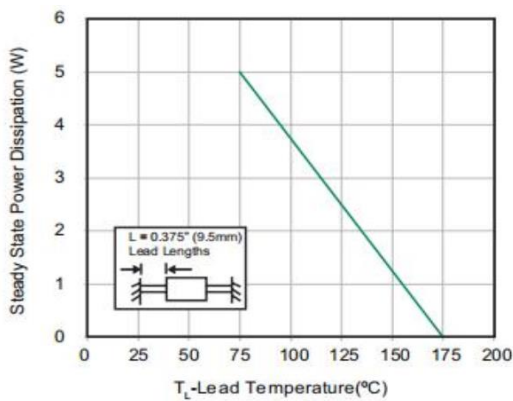
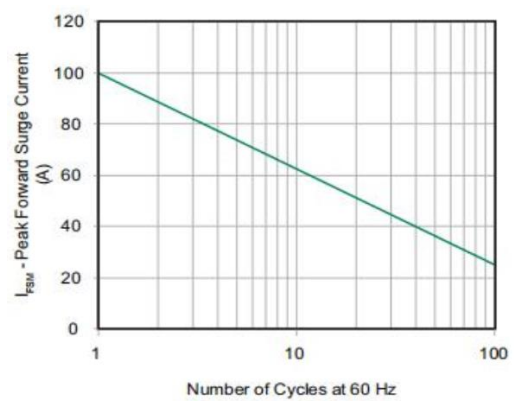


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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