

FEATURES

- | Plastic package has underwriters laboratory
- | Flammability classification 94V-0
- | Glass passivated junction
- | 6000W peak pulse power capability on 10/1000µs waveform
- | Excellent clamping capability
- | Low incremental surge resistance
- | Fast response time: typically less than 1.0ps from 0 Volts to V_{BR} Min
- | Typical IR less than 2µA above 10V
- | Molded plastic over glass passivated junction
- | Polarity: Color band denoted cathode except bidirec
- | Mounting Positioning: Any



R-6/P-600



Bi-directional



Uni-directional

Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C
Peak pulse power dissipation at 10/1000µs waveform	P_{PP}	6000	W
Power dissipation On infinite heat sink at $T_L=75^\circ\text{C}$	P_D	8.0	
Peak pulse current with a 10/1000us waveform	I_{PPM}	See Next Table	A
Peak forward surge current, 8.3ms single half sine-wave for unidirectional only	I_{FSM}	500	A

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

Part Number		Marking		V_R	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	I_{PP}	$I_R@V_R$
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min.(V)	Max.(V)	mA	V	A	Max.(μA)
6KP5.0A	6KP5.0CA	6KP5.0A	6KP5.0CA	5.0	6.40	7.00	10	9.2	652.2	1000
6KP6.0A	6KP6.0CA	6KP6.0A	6KP6.0CA	6.0	6.67	7.37	10	10.3	582.5	1000
6KP6.5A	6KP6.5CA	6KP6.5A	6KP6.5CA	6.5	7.22	7.98	10	11.2	535.7	500
6KP7.0A	6KP7.0CA	6KP7.0A	6KP7.0CA	7.0	7.78	8.60	10	12.0	500	500
6KP7.5A	6KP7.5CA	6KP7.5A	6KP7.5CA	7.5	8.33	9.21	1	12.9	465.1	300
6KP8.0A	6KP8.0CA	6KP8.0A	6KP8.0CA	8.0	8.89	9.83	1	13.6	441.2	300
6KP8.5A	6KP8.5CA	6KP8.5A	6KP8.5CA	8.5	9.44	10.4	1	14.4	416.7	150
6KP9.0A	6KP9.0CA	6KP9.0A	6KP9.0CA	9.0	10.0	11.1	1	15.4	389.6	50
6KP10A	6KP10CA	6KP10A	6KP10CA	10.0	11.1	12.3	1	17.0	352.9	5
6KP11A	6KP11CA	6KP11A	6KP11CA	11.0	12.2	13.5	1	18.2	329.7	5
6KP12A	6KP12CA	6KP12A	6KP12CA	12.0	13.3	14.7	1	19.9	301.5	5
6KP13A	6KP13CA	6KP13A	6KP13CA	13.0	14.4	15.9	1	21.5	279.1	5
6KP14A	6KP14CA	6KP14A	6KP14CA	14.0	15.6	17.2	1	23.2	258.6	5
6KP15A	6KP15CA	6KP15A	6KP15CA	15.0	16.7	18.5	1	24.4	245.9	5
6KP16A	6KP16CA	6KP16A	6KP16CA	16.0	17.8	19.7	1	26.0	230.8	5
6KP17A	6KP17CA	6KP17A	6KP17CA	17.0	18.9	20.9	1	27.6	217.4	5
6KP18A	6KP18CA	6KP18A	6KP18CA	18.0	20.0	22.1	1	29.2	205.5	5
6KP19A	6KP19CA	6KP19A	6KP19CA	19.0	21.1	23.3	1	30.8	194.8	5
6KP20A	6KP20CA	6KP20A	6KP20CA	20.0	22.2	24.5	1	32.4	185.2	5
6KP22A	6KP22CA	6KP22A	6KP22CA	22.0	24.4	26.9	1	35.5	169.0	5
6KP24A	6KP24CA	6KP24A	6KP24CA	24.0	26.7	29.5	1	38.9	154.2	5
6KP26A	6KP26CA	6KP26A	6KP26CA	26.0	28.9	31.9	1	42.1	142.5	5
6KP28A	6KP28CA	6KP28A	6KP28CA	28.0	31.1	34.4	1	45.4	132.2	5
6KP30A	6KP30CA	6KP30A	6KP30CA	30.0	33.3	36.8	1	48.4	124.0	5
6KP33A	6KP33CA	6KP33A	6KP33CA	33.0	36.7	40.6	1	53.3	112.6	5
6KP36A	6KP36CA	6KP36A	6KP36CA	36.0	40.0	44.2	1	58.1	103.3	5
6KP40A	6KP40CA	6KP40A	6KP40CA	40.0	44.4	49.1	1	64.5	93.0	5
6KP43A	6KP43CA	6KP43A	6KP43CA	43.0	47.8	52.8	1	69.4	86.5	5
6KP45A	6KP45CA	6KP45A	6KP45CA	45.0	50.0	55.3	1	72.7	82.5	5
6KP48A	6KP48CA	6KP48A	6KP48CA	48.0	53.3	58.9	1	77.4	77.5	5
6KP51A	6KP51CA	6KP51A	6KP51CA	51.0	56.7	62.7	1	82.4	72.8	5

Part Number		Marking		V_R	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	I_{PP}	$I_R@V_R$
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min.(V)	Max.(V)	mA	V	A	Max.(μ A)
6KP54A	6KP54CA	6KP54A	6KP54CA	54.0	60.0	66.3	1	87.1	68.9	5
6KP58A	6KP58CA	6KP58A	6KP58CA	58.0	64.4	71.2	1	93.6	64.1	5
6KP60A	6KP60CA	6KP60A	6KP60CA	60.0	66.7	73.7	1	96.8	62.0	5
6KP64A	6KP64CA	6KP64A	6KP64CA	64.0	71.1	78.6	1	103.0	58.3	5
6KP70A	6KP70CA	6KP70A	6KP70CA	70.0	77.8	86.0	1	113.0	53.1	5
6KP75A	6KP75CA	6KP75A	6KP75CA	75.0	83.3	92.1	1	121.0	49.6	5
6KP78A	6KP78CA	6KP78A	6KP78CA	78.0	86.7	95.8	1	126.0	47.6	5
6KP80A	6KP80CA	6KP80A	6KP80CA	80.0	88.8	97.6	1	129.6	46.3	5
6KP85A	6KP85CA	6KP85A	6KP85CA	85.0	94.4	104.0	1	137.0	43.8	5
6KP90A	6KP90CA	6KP90A	6KP90CA	90.0	100.0	111.0	1	146.0	41.1	5
6KP100A	6KP100CA	6KP100A	6KP100CA	100.0	111.0	123.0	1	162.0	37.0	5
6KP110A	6KP110CA	6KP110A	6KP110CA	110.0	122.0	135.0	1	177.0	33.9	5
6KP120A	6KP120CA	6KP120A	6KP120CA	120.0	133.0	147.0	1	193.0	31.1	5
6KP130A	6KP130CA	6KP130A	6KP130CA	130.0	144.0	159.0	1	209.0	28.7	5
6KP140A	6KP140CA	6KP140A	6KP140CA	140.0	155.0	171.0	1	226.8	26.5	5
6KP150A	6KP150CA	6KP150A	6KP150CA	150.0	167.0	185.0	1	243.0	24.7	5
6KP160A	6KP160CA	6KP160A	6KP160CA	160.0	178.0	197.0	1	259.0	23.2	5
6KP170A	6KP170CA	6KP170A	6KP170CA	170.0	189.0	209.0	1	275.0	21.8	5
6KP180A	6KP180CA	6KP180A	6KP180CA	180.0	201.0	220.0	1	291.6	20.6	5
6KP190A	6KP190CA	6KP190A	6KP190CA	190.0	211.0	232.0	1	307.8	19.5	5
6KP200A	6KP200CA	6KP200A	6KP200CA	200.0	224.0	247.0	5	324.0	15.43	5
6KP210A	6KP210CA	6KP210A	6KP210CA	210.0	233.0	258.0	5	349.5	14.31	5
6KP220A	6KP220CA	6KP220A	6KP220CA	220.0	246.0	272.0	5	356.0	14.04	5
6KP250A	6KP250CA	6KP250A	6KP250CA	250.0	279.0	309.0	5	405.0	12.35	5
6KP300A	6KP300CA	6KP300A	6KP300CA	300.0	335.0	371.0	5	486.0	10.29	5
6KP350A	6KP350CA	6KP350A	6KP350CA	350.0	391.0	432.0	5	567.0	8.82	5
6KP400A	6KP400CA	6KP400A	6KP400CA	400.0	447.0	494.0	5	648.0	7.72	5
6KP440A	6KP440CA	6KP440A	6KP440CA	440.0	492.0	543.0	5	713.0	7.01	5

RATINGS AND CHARACTERISTICS CURVES ($T_A=25^\circ\text{C}$)

Figure 1: Peak Pulse Power Rating Curve

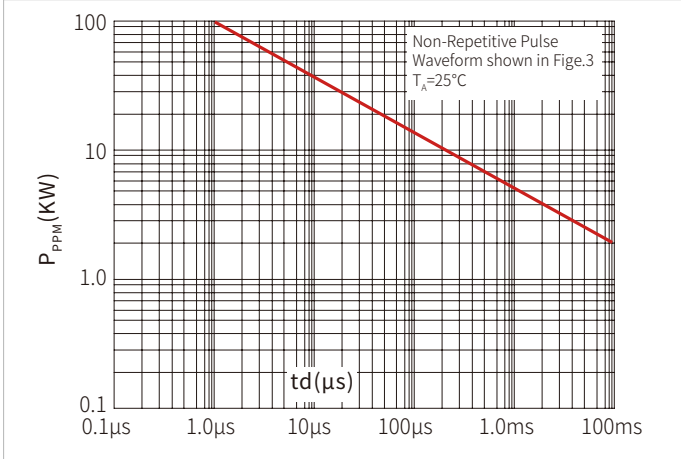


Figure 2: Pulse Power or Current vs. Initial Junction Temperature

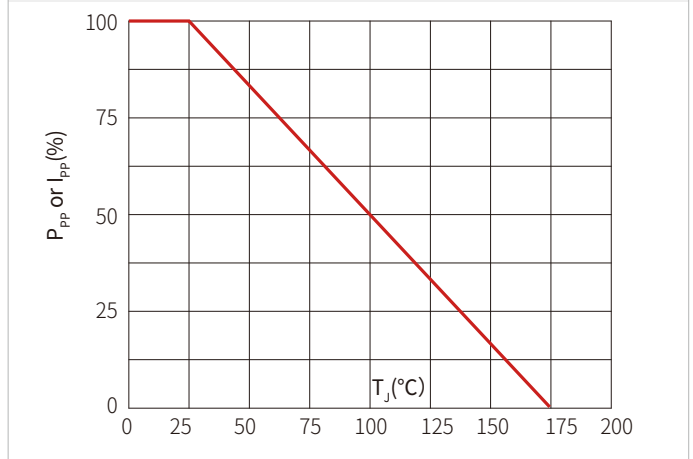


Figure 3: Pulse waveform

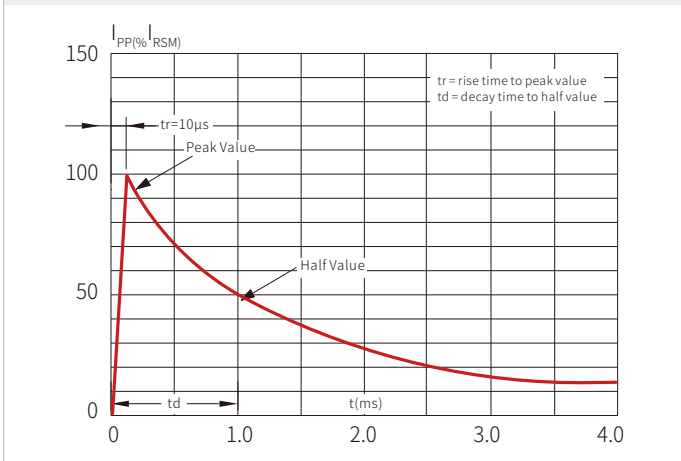


Figure 4: Power Derating Curve

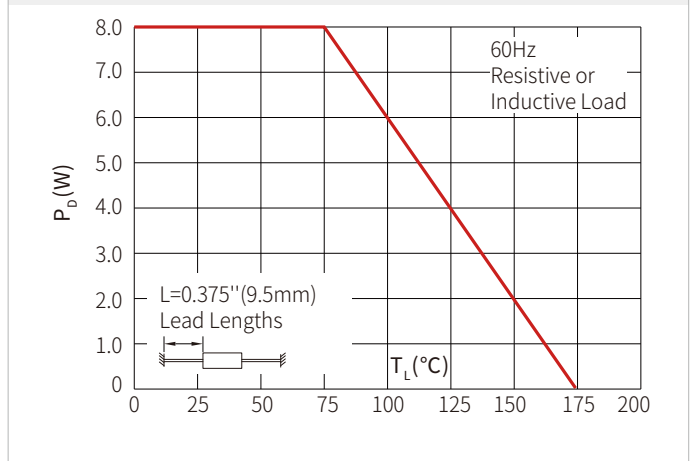
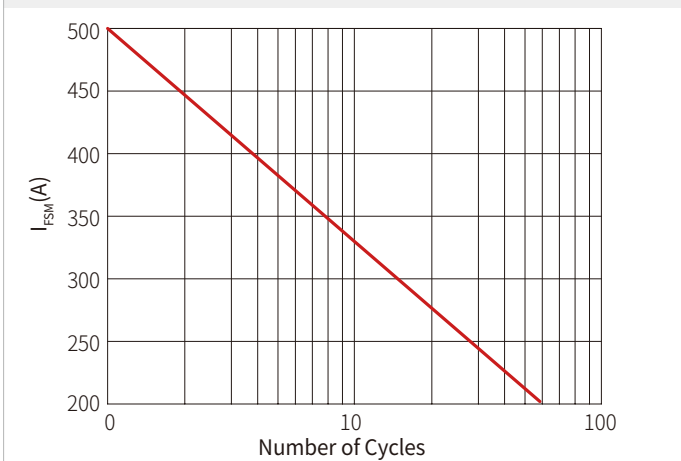
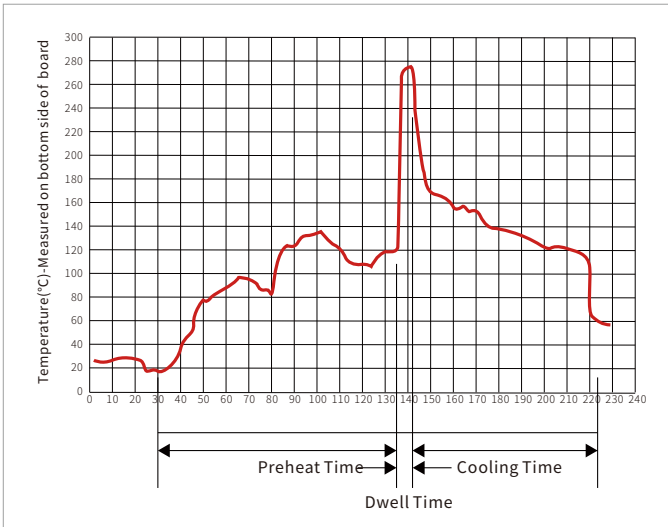


Figure 5: Maximum Non-Repetitive Surge Current

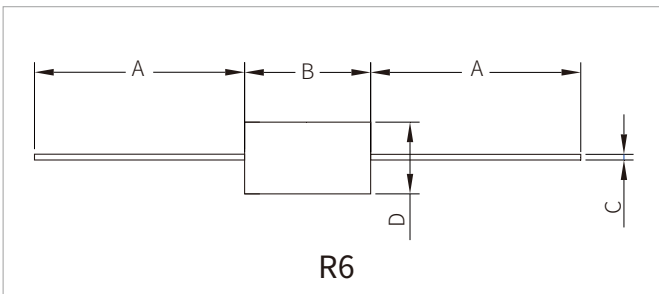


WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	8.60	9.40	0.339	0.370
C	1.20	1.40	0.047	0.055
D	8.60	9.10	0.339	0.358

ORDERING INFORMATION

Part Number	Component Package	Per Box (Pcs)	Per Carton (Pcs)	Description
6KPxxA/CA	R6/P600	300	3000	Box

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By QR Code

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Wechat

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