FEATURES

- Plastic package has underwriters laboratory
- Flammability classification 94V-0
- Glass passivated junction
- 8000W 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 Positing: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°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}	8000	W
Steady state power dissipation at T_L=75°C	$P_{M(AV)}$	8.0	
Peak forward surge current, 8.3ms single half sine-wave for unidirectional only	I_{FSM}	400	A
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	40	°C/W

ELECTRICAL CHARACTERISTICS(T_A=25°C)

Part Number		Marking		V_R	V_{BR}@I_T		I_T	V_C@I_{PP}	I_{PP}①	I_R@V_R
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min.(V)	Max.(V)	mA	V	A	Max.(μA)
8KP5.0A	8KP5.0CA	8KP5.0A	8KP5.0CA	5.0	6.40	7.00	50	9.2	869.6	5000
8KP6.0A	8KP6.0CA	8KP6.0A	8KP6.0CA	6.0	6.67	7.37	50	10.3	776.7	5000
8KP6.5A	8KP6.5CA	8KP6.5A	8KP6.5CA	6.5	7.22	7.98	50	11.2	714.3	2000
8KP7.0A	8KP7.0CA	8KP7.0A	8KP7.0CA	7.0	7.78	8.60	50	12.0	666.7	1000
8KP7.5A	8KP7.5CA	8KP7.5A	8KP7.5CA	7.5	8.33	9.21	5	12.9	620.2	250
8KP8.0A	8KP8.0CA	8KP8.0A	8KP8.0CA	8.0	8.89	9.83	5	13.6	588.2	150
8KP8.5A	8KP8.5CA	8KP8.5A	8KP8.5CA	8.5	9.44	10.40	5	14.4	555.6	50
8KP9.0A	8KP9.0CA	8KP9.0A	8KP9.0CA	9.0	10.0	11.1	5	15.4	519.5	20
8KP10A	8KP10CA	8KP10A	8KP10CA	10.0	11.10	12.30	5	17.0	470.6	15
8KP11A	8KP11CA	8KP11A	8KP11CA	11.0	12.2	13.5	5	18.2	439.6	2
8KP12A	8KP12CA	8KP12A	8KP12CA	12.0	13.30	14.70	5	19.9	402.0	2
8KP13A	8KP13CA	8KP13A	8KP13CA	13.0	14.4	15.9	5	21.5	372.1	2
8KP14A	8KP14CA	8KP14A	8KP14CA	14.0	15.6	17.2	5	23.2	344.8	2
8KP15A	8KP15CA	8KP15A	8KP15CA	15.0	16.7	18.5	5	24.4	327.9	2
8KP16A	8KP16CA	8KP16A	8KP16CA	16.0	17.8	19.7	5	26.0	307.7	2
8KP17A	8KP17CA	8KP17A	8KP17CA	17.0	18.9	20.9	5	27.6	289.9	2
8KP18A	8KP18CA	8KP18A	8KP18CA	18.0	20.0	22.1	5	29.2	274.0	2
8KP20A	8KP20CA	8KP20A	8KP20CA	20.0	22.2	24.5	5	32.4	246.9	2
8KP22A	8KP22CA	8KP22A	8KP22CA	22.0	24.0	26.9	5	35.5	225.4	2
8KP24A	8KP24CA	8KP24A	8KP24CA	24.0	26.7	29.5	5	38.9	205.7	2
8KP26A	8KP26CA	8KP26A	8KP26CA	26.0	28.9	31.9	5	42.1	190.0	2
8KP28A	8KP28CA	8KP28A	8KP28CA	28.0	31.1	34.4	5	45.4	176.2	2
8KP30A	8KP30CA	8KP30A	8KP30CA	30.0	33.3	36.8	5	48.4	165.3	2
8KP33A	8KP33CA	8KP33A	8KP33CA	33.0	36.7	40.6	5	53.3	150.1	2
8KP36A	8KP36CA	8KP36A	8KP36CA	36.0	40.0	44.2	5	58.1	137.7	2
8KP40A	8KP40CA	8KP40A	8KP40CA	40.0	44.4	49.1	5	64.5	124.0	2

Part Number		Marking		V_R	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	I_{PP}①	$I_R@V_R$
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min.(V)	Max.(V)	mA	V	A	Max.(μA)
8KP43A	8KP43CA	8KP43A	8KP43CA	43.0	47.8	52.8	5	69.4	115.3	2
8KP45A	8KP45CA	8KP45A	8KP45CA	45.0	50.0	55.3	5	72.7	110.0	2
8KP48A	8KP48CA	8KP48A	8KP48CA	48.0	53.3	58.9	5	77.4	103.4	2
8KP51A	8KP51CA	8KP51A	8KP51CA	51.0	56.7	62.7	5	82.4	97.1	2
8KP54A	8KP54CA	8KP54A	8KP54CA	54.0	60.0	66.3	5	87.1	91.8	2
8KP58A	8KP58CA	8KP58A	8KP58CA	58.0	64.4	71.2	5	93.6	85.5	2
8KP60A	8KP60CA	8KP60A	8KP60CA	60.0	66.7	73.7	5	96.8	82.6	2
8KP64A	8KP64CA	8KP64A	8KP64CA	64.0	71.1	78.6	5	103.0	77.7	2
8KP70A	8KP70CA	8KP70A	8KP70CA	70.0	77.8	86.0	5	113.0	70.8	2
8KP75A	8KP75CA	8KP75A	8KP75CA	75.0	83.3	92.1	5	121.0	66.1	2
8KP78A	8KP78CA	8KP78A	8KP78CA	78.0	86.7	95.8	5	126.0	63.5	2
8KP85A	8KP85CA	8KP85A	8KP85CA	85.0	94.4	104.0	5	137.0	58.4	2
8KP90A	8KP90CA	8KP90A	8KP90CA	90.0	100.0	111.0	5	146.0	54.8	2
8KP100A	8KP100CA	8KP100A	8KP100CA	100.0	110.0	123.0	5	162.0	49.4	2
8KP110A	8KP110CA	8KP110A	8KP110CA	110.0	122.0	135.0	5	177.0	45.2	2
8KP120A	8KP120CA	8KP120A	8KP120CA	120.0	133.0	147.0	5	193.0	41.5	2
8KP130A	8KP130CA	8KP130A	8KP130CA	130.0	144.0	159.0	5	209.0	38.3	2
8KP150A	8KP150CA	8KP150A	8KP150CA	150.0	167.0	185.0	5	243.0	32.9	2
8KP160A	8KP160CA	8KP160A	8KP160CA	160.0	178.0	197.0	5	259.0	30.9	2
8KP170A	8KP170CA	8KP170A	8KP170CA	170.0	189.0	209.0	5	275.0	29.1	2
8KP180A	8KP180CA	8KP180A	8KP180CA	180.0	200.0	221.0	5	289.0	27.7	2
8KP190A	8KP190CA	8KP190A	8KP190CA	190.0	211.0	233.0	5	310.0	25.8	2
8KP200A	8KP200CA	8KP200A	8KP200CA	200.0	222.0	246.0	5	329.2	24.3	2
8KP210A	8KP210CA	8KP210A	8KP210CA	210.0	233.0	258.0	5	349.5	22.9	2
8KP220A	8KP220CA	8KP220A	8KP220CA	220.0	244.0	270.0	5	371.1	21.6	2
8KP250A	8KP250CA	8KP250A	8KP250CA	250.0	277.0	306.0	5	425.0	18.8	2

Note:
①.Surge waveform:10/1000μs
V_R: Stand-off voltage -- Maximum voltage that can be applied
V_{BR}: Breakdown voltage
V_C: Clamping voltage -- Peak voltage measured across the suppressor at a specified I_{PP}
I_R: Reverse leakage current

RATINGS AND CHARACTERISTICS CURVES(T_A=25°C)

Figure 1: V- I curve characteristics (Uni-directional)

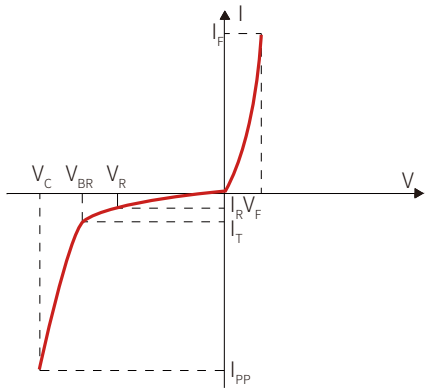


Figure 2: V- I curve characteristics (Bi-directional)

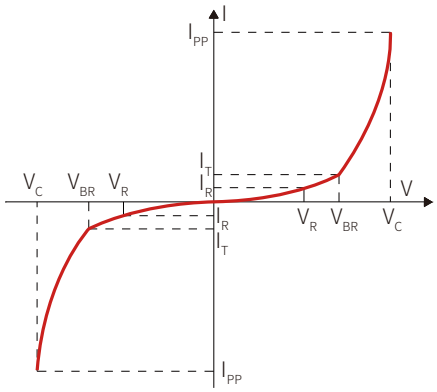


Figure 3: Pulse waveform

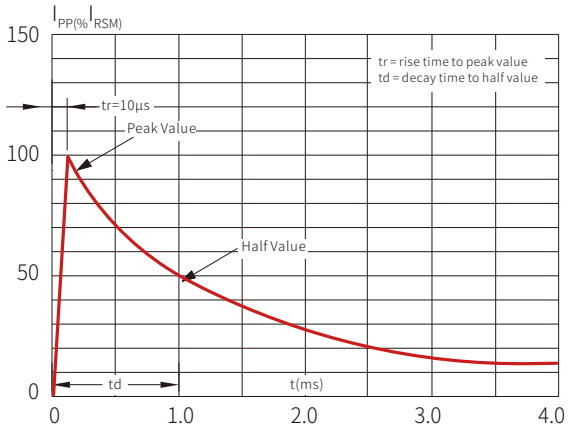
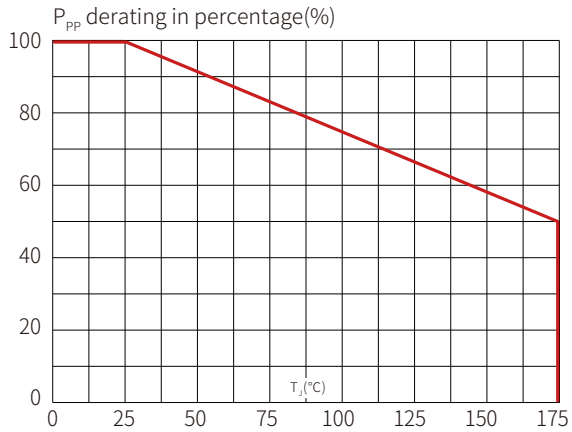
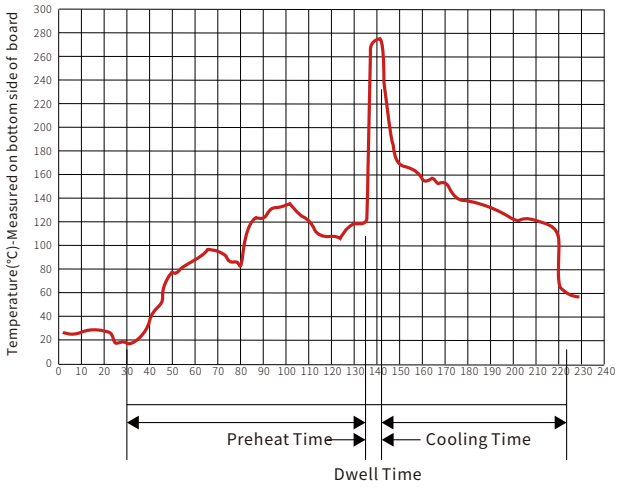


Figure 4: Power derating curve

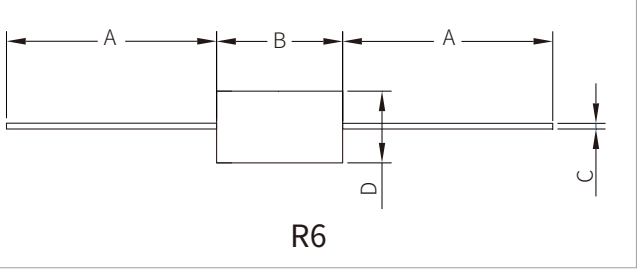


WAVE SOLDERING



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
8KPxxA/CA	R6/P600	300	3000	Box

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No.3387 Shendu Road
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Minhang Shanghai China
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