FEATURES

- Plastic package has underwriters laboratory
- Flammability classification 94V-0
- Glass passivated junction
- 3000W 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 VBR min＞12V
- 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}	3000	W
Steady state power dissipation at T_L=75°C	$P_{M(AV)}$	6.5	
Peak pulse current of on 10/1000μs waveform	I_{PP}	See next table	A
Peak forward surge current, 8.3ms single half sine-wave for unidirectional only	I_{FSM}	300	A

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)
3KP5.0A	3KP5.0CA	3KP5.0A	3KP5.0CA	5.0	6.40	7.00	10	9.2	326.1	150
3KP6.0A	3KP6.0CA	3KP6.0A	3KP6.0CA	6.0	6.67	7.37	10	10.3	291.3	100
3KP6.5A	3KP6.5CA	3KP6.5A	3KP6.5CA	6.5	7.22	7.98	10	11.2	267.9	50
3KP7.0A	3KP7.0CA	3KP7.0A	3KP7.0CA	7.0	7.78	8.60	10	12.0	250.0	20
3KP7.5A	3KP7.5CA	3KP7.5A	3KP7.5CA	7.5	8.33	9.21	1	12.9	232.6	10
3KP8.0A	3KP8.0CA	3KP8.0A	3KP8.0CA	8.0	8.89	9.83	1	13.6	220.6	10
3KP8.5A	3KP8.5CA	3KP8.5A	3KP8.5CA	8.5	9.44	10.40	1	14.4	208.3	10
3KP9.0A	3KP9.0CA	3KP9.0A	3KP9.0CA	9.0	10.00	11.10	1	15.4	194.8	10
3KP10A	3KP10CA	3KP10A	3KP10CA	10.0	11.10	12.30	1	17.0	176.5	5
3KP12A	3KP12CA	3KP12A	3KP12CA	12.0	13.30	14.70	1	19.9	150.8	2
3KP13A	3KP13CA	3KP13A	3KP13CA	13.0	14.40	15.90	1	21.5	139.5	2
3KP14A	3KP14CA	3KP14A	3KP14CA	14.0	15.60	17.20	1	23.2	129.3	1
3KP15A	3KP15CA	3KP15A	3KP15CA	15.0	16.70	18.50	1	24.4	123.0	1
3KP16A	3KP16CA	3KP16A	3KP16CA	16.0	17.80	19.70	1	26.0	115.4	1
3KP17A	3KP17CA	3KP17A	3KP17CA	17.0	18.90	20.90	1	27.6	108.7	1
3KP18A	3KP18CA	3KP18A	3KP18CA	18.0	20.00	22.10	1	29.2	102.7	1
3KP20A	3KP20CA	3KP20A	3KP20CA	20.0	22.20	24.50	1	32.4	92.6	1
3KP24A	3KP24CA	3KP24A	3KP24CA	24.0	26.70	29.50	1	38.9	77.1	1
3KP26A	3KP26CA	3KP26A	3KP26CA	26.0	28.90	31.90	1	42.1	71.3	1
3KP28A	3KP28CA	3KP28A	3KP28CA	28.0	31.10	34.40	1	45.4	66.1	1
3KP30A	3KP30CA	3KP30A	3KP30CA	30.0	33.30	36.80	1	48.4	62.0	1
3KP33A	3KP33CA	3KP33A	3KP33CA	33.0	36.70	40.60	1	53.3	56.3	1
3KP36A	3KP36CA	3KP36A	3KP36CA	36.0	40.00	44.20	1	58.1	51.6	1
3KP40A	3KP40CA	3KP40A	3KP40CA	40.0	44.40	49.10	1	64.5	46.5	1
3KP43A	3KP43CA	3KP43A	3KP43CA	43.0	47.80	52.80	1	69.4	43.2	1
3KP45A	3KP45CA	3KP45A	3KP45CA	45.0	50.00	55.30	1	72.7	41.3	1

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)
3KP48A	3KP48CA	3KP48A	3KP48CA	48.0	53.30	58.90	1	77.4	38.8	1
3KP51A	3KP51CA	3KP51A	3KP51CA	51	56.70	62.70	1	82.4	36.4	1
3KP54A	3KP54CA	3KP54A	3KP54CA	54	60.00	66.30	1	87.1	34.4	1
3KP58A	3KP58CA	3KP58A	3KP58CA	58	64.40	71.20	1	93.6	32.1	1
3KP60A	3KP60CA	3KP60A	3KP60CA	60	66.70	73.70	1	96.8	31.0	1
3KP64A	3KP64CA	3KP64A	3KP64CA	64	71.10	78.60	1	103.0	29.1	1
3KP70A	3KP70CA	3KP70A	3KP70CA	70	77.80	86.00	1	113.0	26.5	1
3KP75A	3KP75CA	3KP75A	3KP75CA	75	83.30	92.10	1	121.0	24.8	1
3KP78A	3KP78CA	3KP78A	3KP78CA	78	86.70	95.80	1	126.0	23.8	1
3KP85A	3KP85CA	3KP85A	3KP85CA	85	94.40	104.0	1	137.0	21.9	1
3KP90A	3KP90CA	3KP90A	3KP90CA	90	100.0	111.0	1	146.0	20.5	1
3KP100A	3KP100CA	3KP100A	3KP100CA	100	111.0	111.0	1	162.0	18.5	1
3KP120A	3KP120CA	3KP120A	3KP120CA	120	133.0	135.0	1	193.0	15.5	1
3KP150A	3KP150CA	3KP150A	3KP150CA	150	167.0	159.0	1	243.0	12.3	1
3KP160A	3KP160CA	3KP160A	3KP160CA	160	178.0	185.0	1	259.0	11.6	1
3KP170A	3KP170CA	3KP170A	3KP170CA	170	189.0	197.0	1	275.0	10.9	1
3KP180A	3KP180CA	3KP180A	3KP180CA	180	201.0	209.0	1	292.0	10.3	1
3KP190A	3KP190CA	3KP190A	3KP190CA	190	211.0	233.0	1	310.0	9.7	1
3KP200A	3KP200CA	3KP200A	3KP200CA	200	224.0	247.0	1	329.2	9.3	1
3KP210A	3KP210CA	3KP210A	3KP210CA	210	237.0	263.0	1	349.5	8.8	1
3KP220A	3KP220CA	3KP220A	3KP220CA	220	246.0	272.0	1	371.1	8.4	1

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)

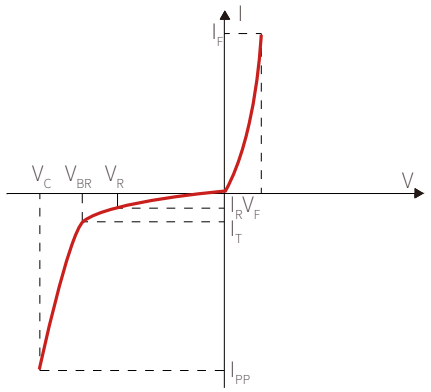


Figure 2: V- I curve characteristics (Bi-directional)

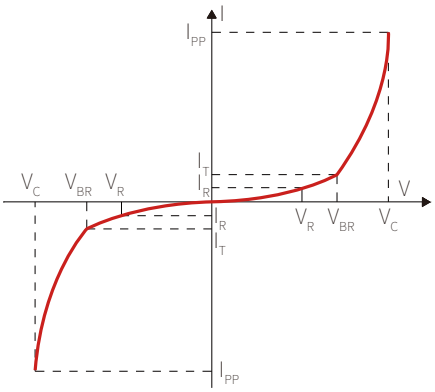


Figure 3: Pulse waveform

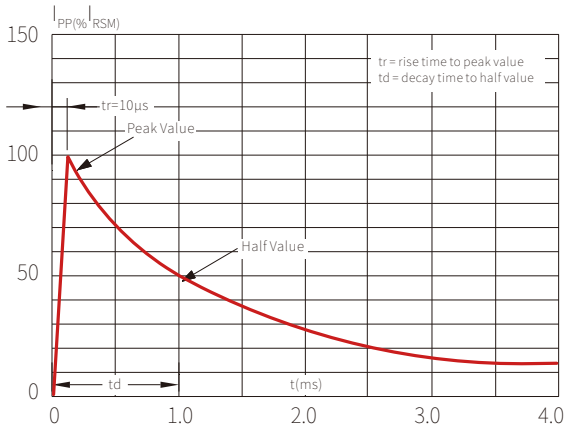
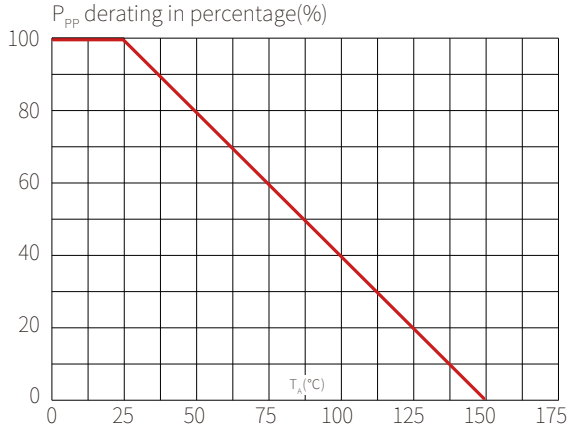
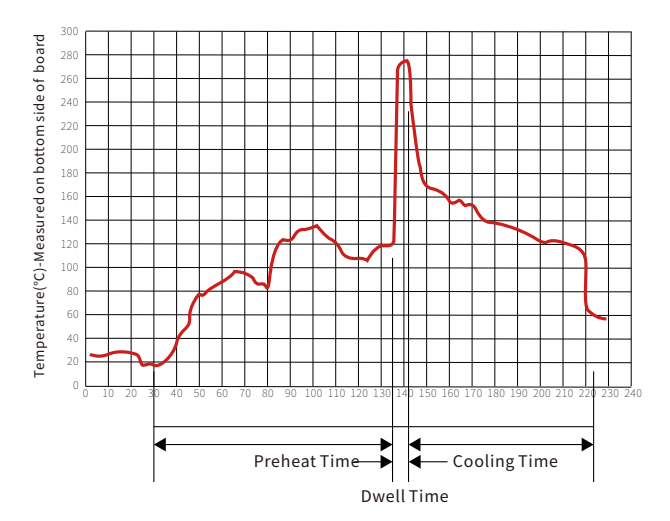


Figure 4: Power derating curve

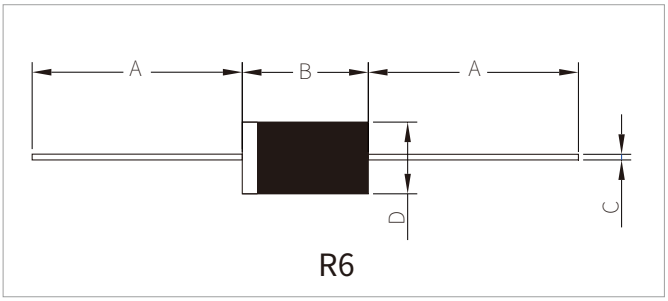


WAVE SOLDERING



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

P600 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
3KPxxA/CA	R6/P600	300	3000	Box

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No.3387 Shendu Road
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