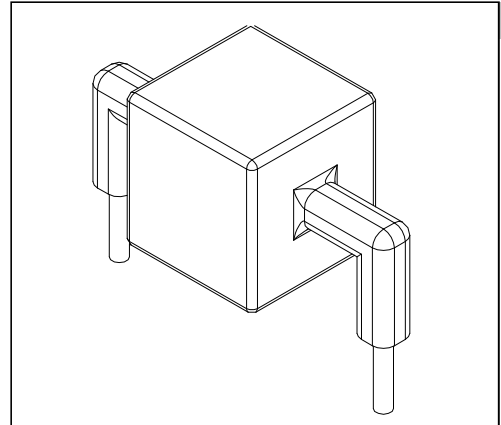


Features

- ◆ High current transient suppressors.
- ◆ Excellent Clamping Capability.
- ◆ Glass Passivated chip.
- ◆ Bi-directional.
- ◆ Low Slope Resistance.
- ◆ Hazardous Substances Free.
- ◆ RoHS Compliant
- ◆ High Temperature soldering: 260°C/10 seconds at terminals
- ◆ Epoxy Encapsulated.
- ◆ UL certified.

**Reverse Stand-Off Voltage :
12.8 to 430 V**



Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value		UNIT
Current Rating, Rated IPP measured with 8/20us pulse	I _{pp}	K1	1	Kamps
		KA	3	
		KB	6	
		KC	10	
		KD	15	
		KE	20	
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150		°C

Marking Information

KAxxx- BCD	
<u>A</u>	Standard 8/20 wave surge levels/regions, suffix with A thru Z
<u>xxx</u>	Normal voltage levels/regions, suffix with 0 thru 9
<u>B</u>	Special custom-made notes, such as VB regions. IR conditions, additional test requirements such as ESD or other conditions etc., suffix with A thru Z or/and 0 thru 9 or none
<u>C</u>	The custom-made options of product packages, such as the dimension requirements, suffix with A thru Z or/and 0 thru 9 or none
<u>D</u>	Special custom-made marking codes, logos, QC conditions, suffix with A thru Z or/and 0 thru 9 or none

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise noted)							
Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	VAC(V)	VDC(V)	VBR(V) MIN.@IT	IT(mA)	8/20 μ s (KA)	VC(V) @IPP	IR(μ A) @VDC
K1076	54	76	83	10	1	135	20
KA012	8.5	12.8	14	10	3	28	20
KA015	11	15	17	10	3	30	20
KA020	14	20	22	10	3	40	20
KA025	17	25	28	10	3	50	20
KA030	21	30	33	10	3	60	20
KA042	30	42	47	10	3	77	20
KA058	40	58	64	10	3	110	20
KA066	45	66	70	10	3	125	20
KA076	54	76	85	10	3	140	20
KA100	72	100	110	10	3	165	20
KA133	100	133	147	10	3	220	20
KA170	130	170	180	10	3	260	20
KA190	145	190	200	10	3	290	20
KA200	150	200	222	10	3	330	20
KA240	180	240	250	10	3	340	20
KA275	210	275	300	10	3	435	20
KA300	230	300	330	10	3	470	20
KA380	275	380	401	10	3	520	20
KA430	310	430	440	10	3	625	20
KA460	330	460	500	10	3	770	20
KA500	385	500	558	10	3	868	20
KB012	8.5	12.8	14	10	6	28	20
KB015	11	15	17	10	6	30	20
KB020	14	20	22	10	6	40	20
KB025	17	25	28	10	6	50	20
KB030	21	30	33	10	6	60	20
KB042	30	42	47	10	6	77	20
KB058	40	58	64	10	6	110	20
KB066	45	66	70	10	6	125	20
KB076	54	76	83	10	6	135	20
KB100	72	100	110	10	6	165	20
KB133	100	133	147	10	6	220	20
KB170	130	170	180	10	6	260	20
KB190	145	190	200	10	6	290	20
KB200	150	200	222	10	6	330	20
KB240	180	240	250	10	6	340	20
KB275	210	275	300	10	6	435	20
KB300	230	300	330	10	6	470	20
KB380	275	380	401	10	6	520	20
KB430	310	430	440	10	6	625	20
KC012	8.5	12.8	14	10	10	28	20

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	VAC(V)	VDC(V)	VBR(V) MIN.@IT	IT(mA)	8/20 μ s (KA)	VC(V) @IPP	IR(μ A) @VDC
KC015	11	15	17	10	10	30	20
KC020	14	20	22	10	10	40	20
KC025	17	25	28	10	10	50	20
KC030	21	30	33	10	10	60	20
KC042	30	42	47	10	10	77	20
KC058	40	58	64	10	10	110	20
KC066	45	66	70	10	10	125	20
KC076	54	76	83	10	10	135	20
KC100	72	100	110	10	10	165	20
KC133	100	133	147	10	10	220	20
KC170	130	170	180	10	10	260	20
KC190	145	190	200	10	10	290	20
KC200	150	200	222	10	10	330	20
KC240	180	240	250	10	10	340	20
KC380	275	380	401	10	10	520	20
KC430	310	430	440	10	10	625	20
KD012	8.5	12.8	14	10	15	28	20
KD015	11	15	17	10	15	30	20
KD020	14	20	22	10	15	40	20
KD025	17	25	28	10	15	50	20
KD030	21	30	33	10	15	60	20
KD042	30	42	47	10	15	77	20
KD058	40	58	64	10	15	110	20
KD066	45	66	70	10	15	125	20
KD076	54	76	85	10	15	145	20
KE012	8.5	12.8	14	10	20	28	20
KE015	11	15	17	10	20	30	20
KE020	14	20	22	10	20	40	20
KE025	17	25	28	10	20	50	20
KE030	21	30	33	10	20	60	20
KE042	30	42	47	10	20	77	20
KE058	40	58	64	10	20	110	20
KE066	45	66	70	10	20	125	20
KE076	54	76	85	10	20	145	20

Typical Performance Characteristics (TA=25°C unless otherwise Specified)

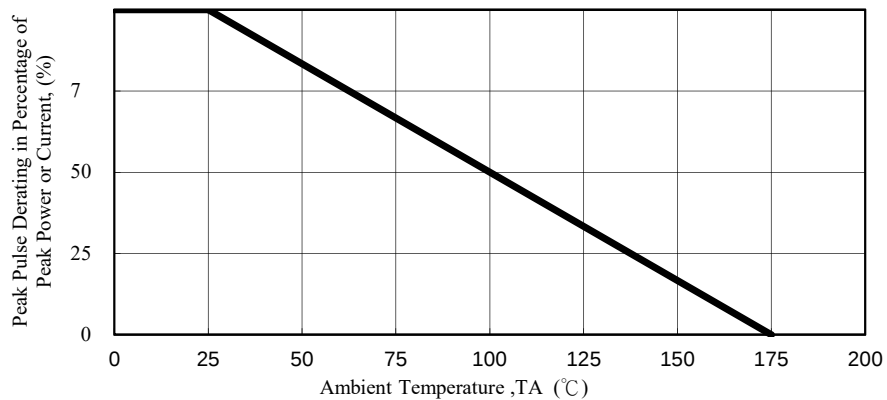


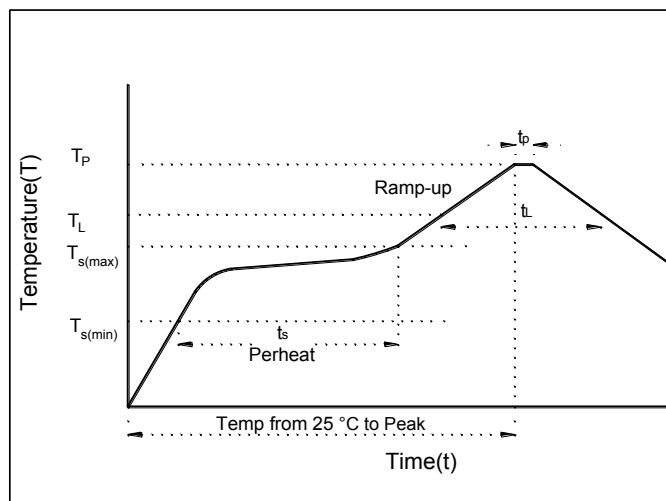
Fig. 1 - Pulse Derating Curve

Soldering Parameters

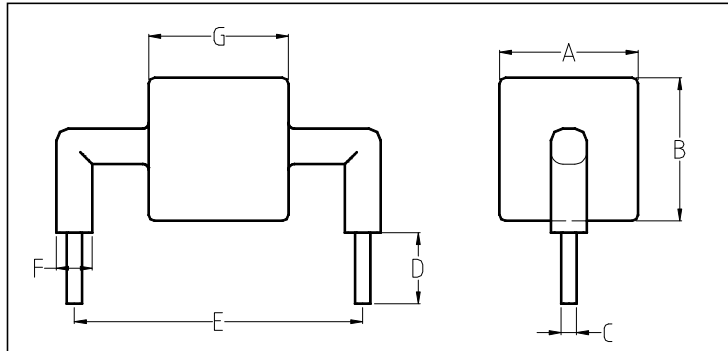
IR-Reflow Condition			
Pre Heat	Temp. min	150	°C
	Temp. max	200	°C
	Time(min to max)	60-180	sec
Ramp up rate (150-200°C)		<3	°C/sec

Reflow	Liquidus Temp.	>220	°C
	Peak Temp.	255-260	°C
	Time(Liq. to Peak)	60-150	sec
Ramp up rate (220-200°C)		<3	°C/sec
Time within actual peak temp.		10-30	sec

Ramp down Rate		<5	°C/sec
Time(25°C to Peak temp.)		<6	min
Do not exceed		280	°C



Dimensions



		UNIT
A	max 15.4	mm
B	max 16.8	mm
C	$\phi 1.30 \pm 0.1$	mm
D	6.0 ± 1.0	mm
E	24.15 ± 0.7	mm
F	max 4.0	mm
G	max 15.0	mm

Contact Information

Changzhou D-first Electronics CO.,Ltd.
www.first-electronic.com
Email: xingsiqian@first-electronic.com
Phone: 13775299578