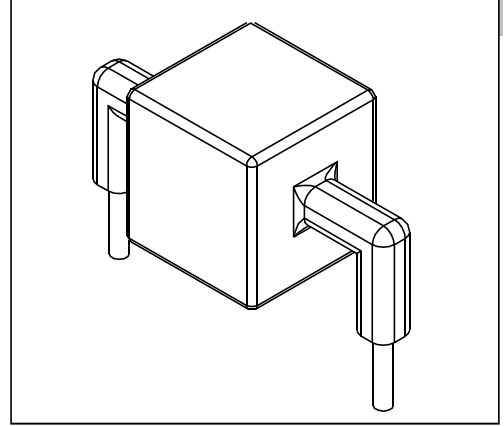


Features

- ◆ 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}	AK1	1	Kamps
		AK3	3	
		AK6	6	
		AK10	10	
		AK15	15	
		AK20	20	
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150		°C

Marking Information

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
AK1-076	54	76	83	10	1	135	20
AK3-012	8.5	12.8	14	10	3	28	20
AK3-015	11	15	17	10	3	30	20
AK3-020	14	20	22	10	3	40	20
AK3-025	17	25	28	10	3	50	20
AK3-030	21	30	33	10	3	60	20
AK3-042	30	42	47	10	3	77	20
AK3-058	40	58	64	10	3	110	20
AK3-066	45	66	70	10	3	125	20
AK3-076	54	76	85	10	3	140	20
AK3-100	72	100	110	10	3	165	20
AK3-133	100	133	147	10	3	220	20
AK3-170	130	170	180	10	3	260	20
AK3-190	145	190	200	10	3	290	20
AK3-200	150	200	222	10	3	330	20
AK3-240	180	240	250	10	3	340	20
AK3-275	210	275	300	10	3	435	20
AK3-300	230	300	330	10	3	470	20
AK3-380	275	380	401	10	3	520	20
AK3-430	310	430	440	10	3	625	20
AK3-460	330	460	500	10	3	770	20
AK3-500	385	500	558	10	3	868	20
AK6-012	8.5	12.8	14	10	6	28	20
AK6-015	11	15	17	10	6	30	20
AK6-020	14	20	22	10	6	40	20
AK6-025	17	25	28	10	6	50	20
AK6-030	21	30	33	10	6	60	20
AK6-042	30	42	47	10	6	77	20
AK6-058	40	58	64	10	6	110	20
AK6-066	45	66	70	10	6	125	20
AK6-076	54	76	83	10	6	135	20
AK6-100	72	100	110	10	6	165	20
AK6-133	100	133	147	10	6	220	20
AK6-170	130	170	180	10	6	260	20
AK6-190	145	190	200	10	6	290	20
AK6-200	150	200	222	10	6	330	20
AK6-240	180	240	250	10	6	340	20
AK6-275	210	275	300	10	6	435	20
AK6-300	230	300	330	10	6	470	20
AK6-380	275	380	401	10	6	520	20
AK6-430	310	430	440	10	6	625	20
AK10-012	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 μs (KA)	VC(V) @IPP	IR(μA) @VDC
AK10-015	11	15	17	10	10	30	20
AK10-020	14	20	22	10	10	40	20
AK10-025	17	25	28	10	10	50	20
AK10-030	21	30	33	10	10	60	20
AK10-042	30	42	47	10	10	77	20
AK10-058	40	58	64	10	10	110	20
AK10-066	45	66	70	10	10	125	20
AK10-076	54	76	83	10	10	135	20
AK10-100	72	100	110	10	10	165	20
AK10-133	100	133	147	10	10	220	20
AK10-170	130	170	180	10	10	260	20
AK10-190	145	190	200	10	10	290	20
AK10-200	150	200	222	10	10	330	20
AK10-240	180	240	250	10	10	340	20
AK10-380	275	380	401	10	10	520	20
AK10-430	310	430	440	10	10	625	20
AK15-012	8.5	12.8	14	10	15	28	20
AK15-015	11	15	17	10	15	30	20
AK15-020	14	20	22	10	15	40	20
AK15-025	17	25	28	10	15	50	20
AK15-030	21	30	33	10	15	60	20
AK15-042	30	42	47	10	15	77	20
AK15-058	40	58	64	10	15	110	20
AK15-066	45	66	70	10	15	125	20
AK15-076	54	76	85	10	15	145	20
AK20-012	8.5	12.8	14	10	20	28	20
AK20-015	11	15	17	10	20	30	20
AK20-020	14	20	22	10	20	40	20
AK20-025	17	25	28	10	20	50	20
AK20-030	21	30	33	10	20	60	20
AK20-042	30	42	47	10	20	77	20
AK20-058	40	58	64	10	20	110	20
AK20-066	45	66	70	10	20	125	20
AK20-076	54	76	85	10	20	145	20

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

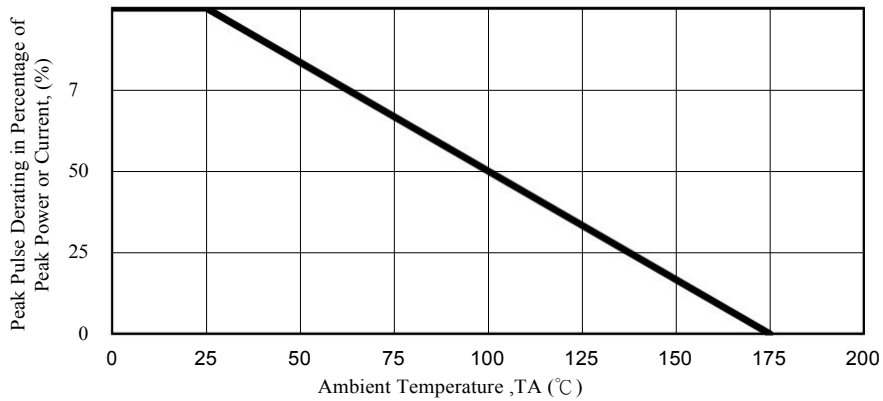


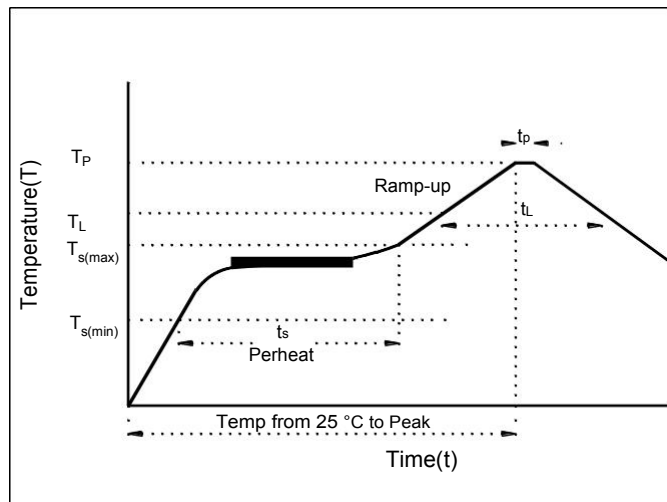
Fig. 1 - Pulse Derating Curve

Soldering Parameters

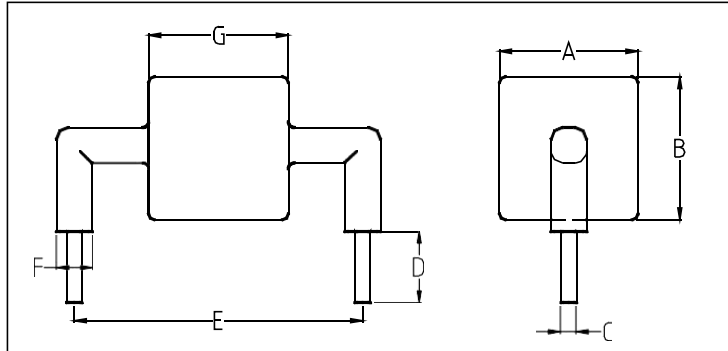
IR-Reflow Condition			
Pre Heat	Temp. min	150	°C
	Temp. max	200	°C
	Time(min to max)	60-180	sec
Ramp up rate (150-200°C)		<3	°C/sec

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