FEATURES

- Bi-directional
- Halogen-free
- Low slope resistance
- Very low clamping voltage
- Sharp breakdown voltage
- Symmetric in leads width for easier soldering during assembly
- Glass passivated junction
- Ultra compact:less than one-tenth the size of traditional discrete solutions
- IEC-61000-4-2 ESD 15KV(Air),8KV(Contact)

AK6

APPROVALS

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

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	Value	Unit
Storage Temperature Range	T_{STG}	-55~150	°C
Operating junction Temperature Range	T_J	-55~125	°C
Current Rating	I_{pp}	6	KA

Notes:
Rated Ipp measured with 8/20uS pluse

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Part Number	Device Marking Code	Standoff Voltage (V_{WM}) (V)	Max. Reverse Leakage (I_R)@V_{WM} (uA)	Typical I_R @85°C uA	Reverse Breakdown Voltage V_{BR}@I_T		Test Current I_T	Maximum Clamping Voltage (I_{PP})		Max.temp Coefficient Of V_{BR}	Max. Capacitance @0Bias 10KHz
					Min(V)	Max(V)	(mA)	V_C(V)	I_{PP}(A)	(%/°C)	(nF)
AK6-015C	6-015C	15	10	15	16	19	10	28	6000	0.1	9.0
AK6-020C	6-020C	20	10	15	22	24	10	50	6000	0.1	9.0
AK6-025C	6-025C	25	10	15	28	30	10	60	6000	0.1	11.0
AK6-030C	6-030C	30	10	15	32	37	10	90	6000	0.1	11.0
AK6-042C	6-042C	42	10	15	47	51	10	105	6000	0.1	10.0
AK6-058C	6-058C	58	10	15	64	70	10	110	6000	0.1	8.0
AK6-066C	6-066C	66	10	15	72	80	10	120	6000	0.1	6.0
AK6-076C	6-076C	76	10	15	85	95	10	140	6000	0.1	6.5
AK6-100C	6-100C	100	10	15	110	122	10	165	6000	0.1	6.0
AK6-133C	6-133C	133	10	15	147	162	10	220	6000	0.1	6.0
AK6-170C	6-170C	170	10	15	179	220	10	260	6000	0.1	2.8
AK6-190C	6-190C	190	10	15	200	245	10	290	6000	0.1	2.5
AK6-240C	6-240C	240	10	15	250	285	10	340	6000	0.1	2.2
AK6-275C	6-275C	275	10	15	300	335	10	435	6000	0.1	2.2
AK6-300C	6-300C	300	10	15	330	366	10	470	6000	0.1	2.0
AK6-380C	6-380C	380	10	15	401	443	10	520	6000	0.1	1.4
AK6-430C	6-430C	430	10	15	440	490	10	625	6000	0.1	1.0

CHARACTERISTIC CURVES

Fig.1 Peak Pulse Power Rating Curve

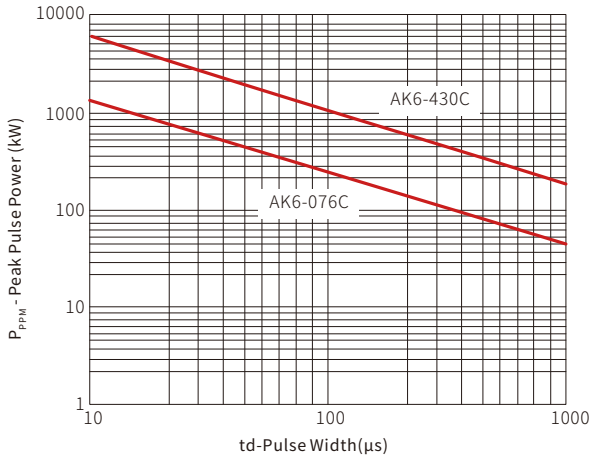


Fig.2 Peak Power Derating

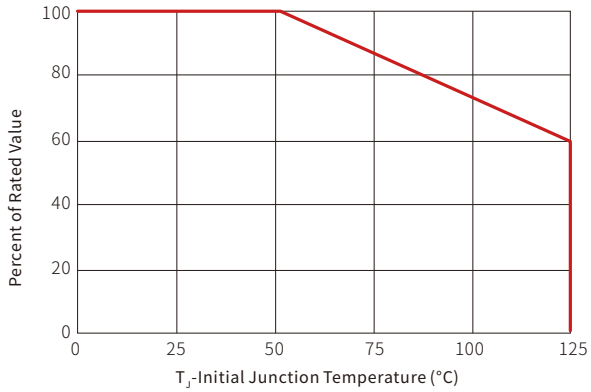


Fig.3 Pulse Waveform

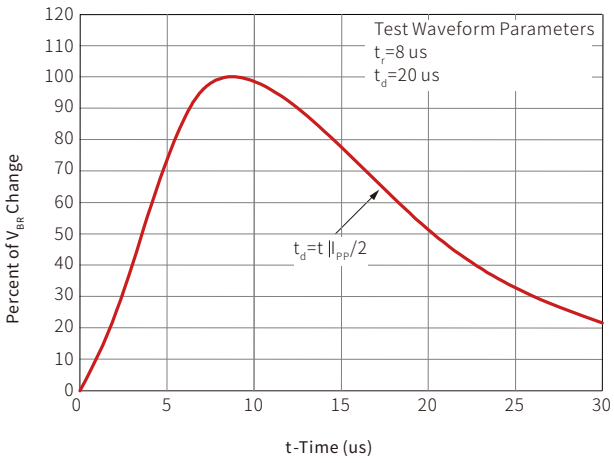
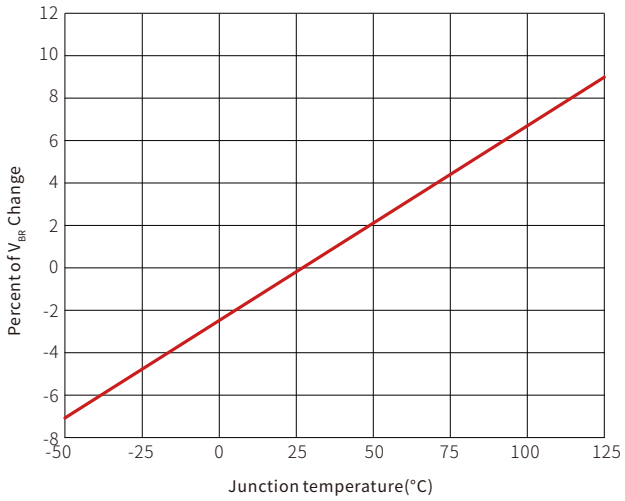
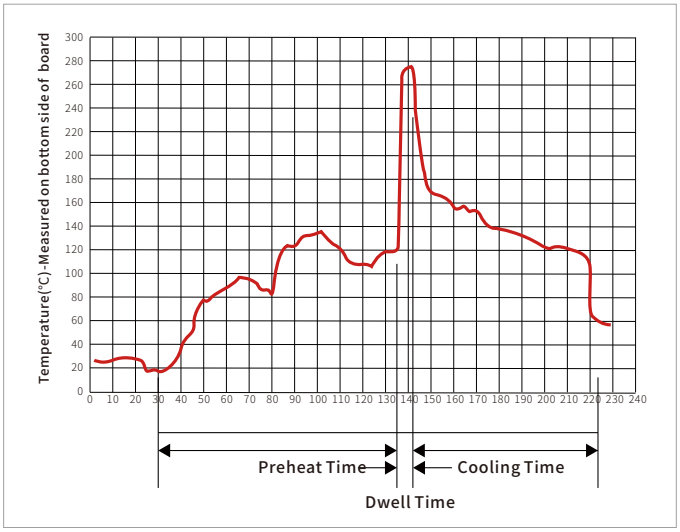


Fig.4 Typical V_{BR} Vs Junction Temperature

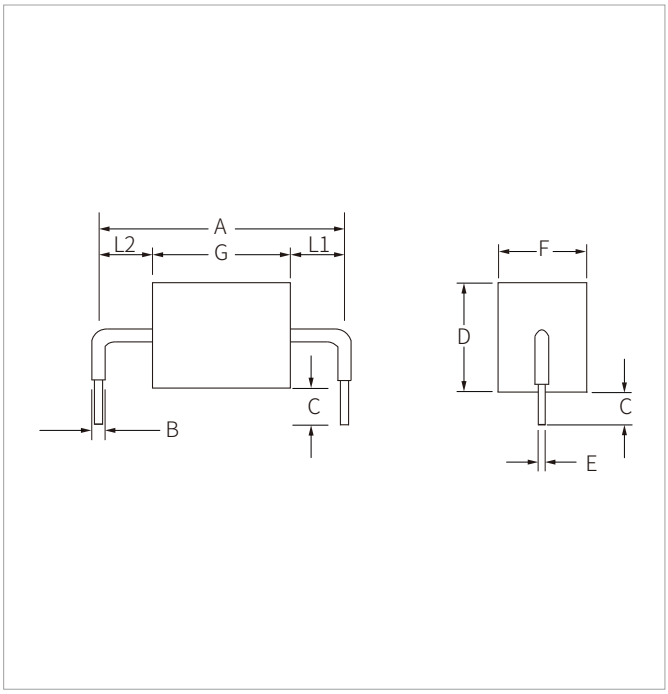


WAVE SOLDERING



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

AK6 PACKAGE INFORMATION



Ref.		Millimeters		Inches	
		Min.	Max.	Min.	Max.
A		23.15	25.15	0.911	0.990
B		1.80	3.00	0.071	0.118
C		6-7		0.236-0.273	
D		14.48Max		0.570Max	
E		1.22	1.32	0.048	0.052
F		12.70Max		0.500Max	
G	030C	3.10	5.10	0.122	0.201
	058C/066C/076C	3.80	5.80	0.150	0.228
	170C/190C	7.13	9.13	0.281	0.360
	240C	8.40	10.40	0.331	0.410
	380C/430C	12.80	14.80	0.504	0.583
L1/L2		L1=L2 tolerance±0.04inch(1.0mm)			

ORDERING INFORMATION

Part Number	Component Package	QTY	Packaging Option
AK6 Series	AK6	56pcs/Box	Bulk

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By QR Code
Website
Wechat

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