

## FEATURES

- | Bi-directional

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- | Halogen-free

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- | Low slope resistance

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- | Very low clamping voltage

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- | Sharp breakdown voltage

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- | Symmetric in leads width for easier soldering during assembly

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- | Glass passivated junction

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- | Ultra compact:less than one-tenth the size of traditional discrete solutions

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- | IEC-61000-4-2 ESD 15KV(Air),8KV(Contact)

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AK10

## APPROVALS

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

## MAXIMUM RATINGS (T<sub>A</sub>=25°C )

Parameter	Symbo	Value	Unit
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C
Operating junction Temperature Range	T <sub>J</sub>	-55~125	°C
Current Rating	I <sub>PP</sub>	10	KA

Notes:  
 Rated I<sub>pp</sub> measured with 8/20uS pluse

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

Part Number	Device Marking Code	Standoff Voltage (V <sub>WM</sub> ) (V)	Max. Reverse Leakage (I <sub>R</sub> ) @V <sub>WM</sub> (uA)	Typical I <sub>R</sub> @85°C uA	Reverse Breakdown Voltage V <sub>BR</sub> @I <sub>T</sub>		Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage (I <sub>pp</sub> )		Max.temp Coefficient Of V <sub>BR</sub> (%/°C)	Max. Capacitance @0Bias 10KHz (pF)
					Min(V)	Max(V)		V <sub>c</sub> (V)	I <sub>pp</sub> (A)		
AK10-015C	10-015C	15	10	15	16	19	10	28	10000	0.1	12.0
AK10-030C	10-030C	30	10	15	32	37	10	58	10000	0.1	11.0
AK10-058C	10-058C	58	10	15	64	70	10	110	10000	0.1	6.5
AK10-066C	10-066C	66	10	15	72	80	10	120	10000	0.1	6.5
AK10-076C	10-076C	76	10	15	85	95	10	140	10000	0.1	6.5
AK10-170C	10-170C	170	10	15	180	220	10	260	10000	0.1	2.8
AK10-190C	10-190C	190	10	15	200	245	10	290	10000	0.1	2.5
AK10-240C	10-240C	240	10	15	250	285	10	340	10000	0.1	2.2
AK10-380C	10-380C	380	10	15	401	443	10	520	10000	0.1	2.0
AK10-430C	10-430C	430	10	15	440	490	10	625	10000	0.1	1.4
AK10-530C	10-530C	530	10	15	560	619	10	750	10000	0.1	1.0

## CHARACTERISTIC CURVES

Fig.1 Peak Pulse Power Rating Curve

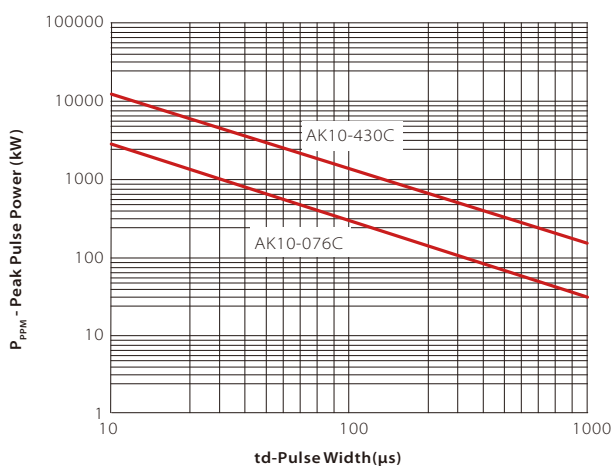
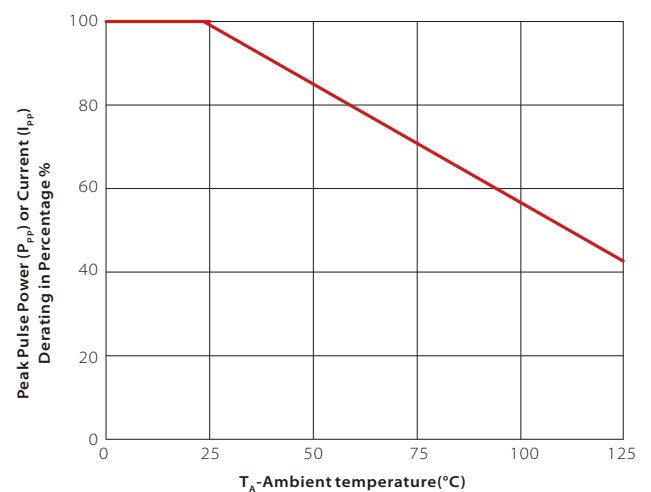
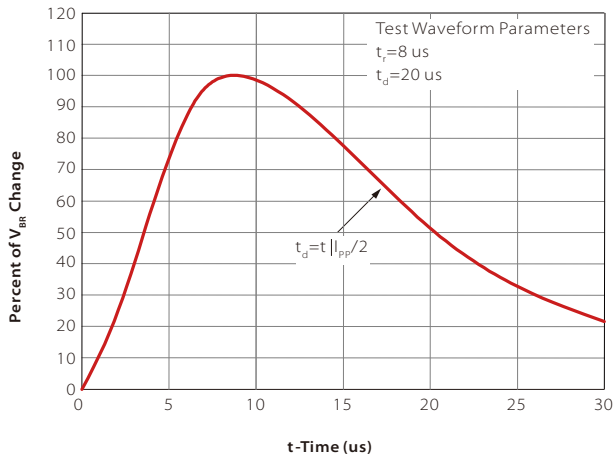
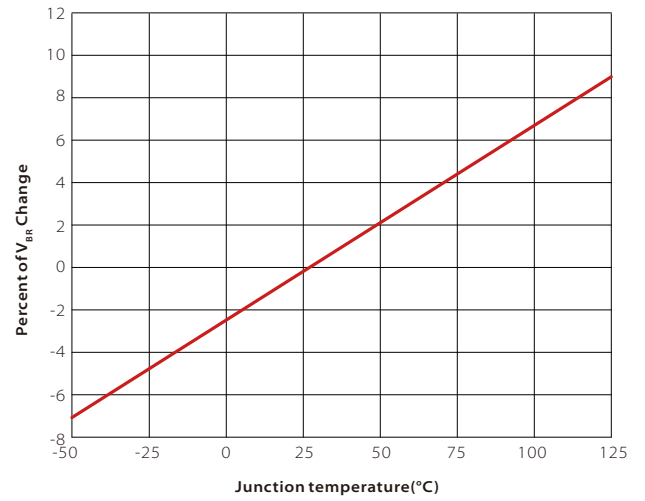
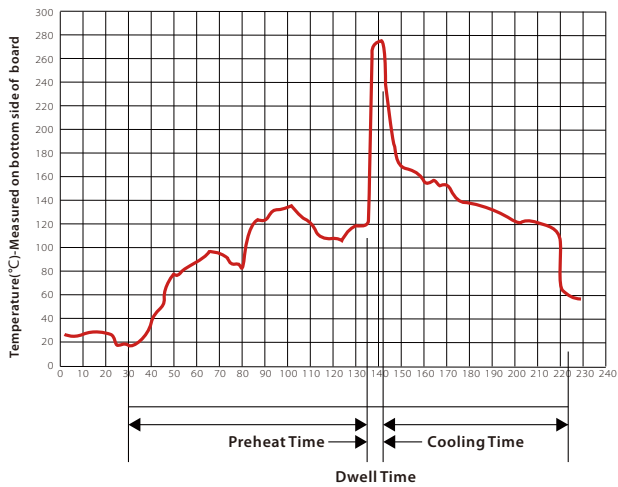


Fig.2 Pulse Derating Curve



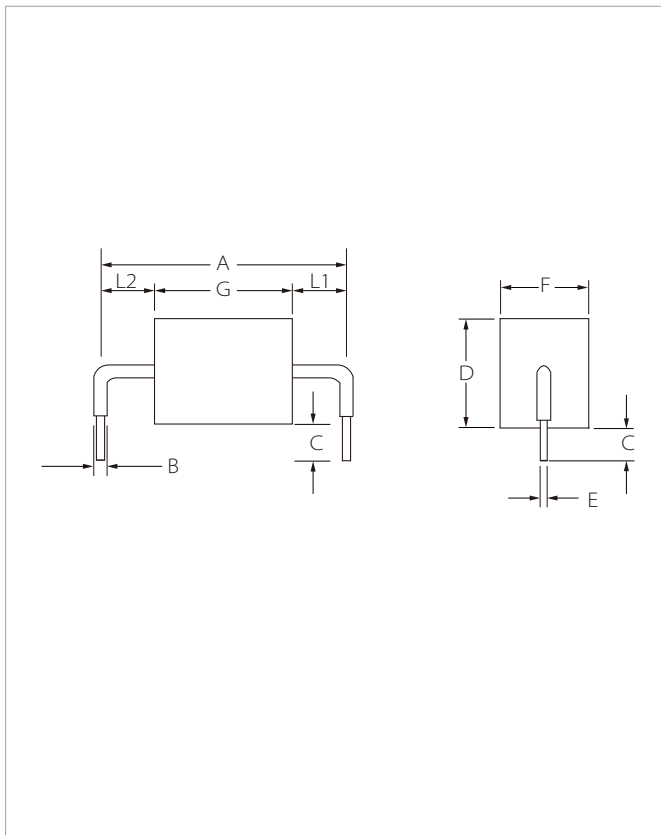
**Fig.3 Pulse Waveform**

**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

## AK10 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	23.15	25.15	0.911	0.990
A-530C	32.70	36.70	1.287	1.445
B	1.80	3.00	0.071	0.118
C	6-20		0.236-0.787	
D	14.48Max		0.570Max	
E	1.22	1.32	0.048	0.052
F	12.70Max		0.500Max	
G-015C	2.60	4.60	0.102	0.181
G-030C	3.23	5.23	0.127	0.206
G-058C/066C/076C	4.08	6.08	0.161	0.240
G-170C/190C	8.20	10.20	0.323	0.402
G-240C	9.67	11.67	0.381	0.459
G-380C/430C	15.50	17.50	0.610	0.689
G-530C	25.5	28.5	1.004	1.122
L1/L2	L1=L2 tolerance±0.04inch(1.0mm)			

## ORDERING INFORMATION

Part Number	Component Package	QTY	Packaging Option
AK10 Series	AK10	50pcs/Box	Bulk

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