

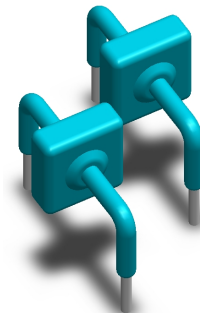
Description

AK6 Series 6000A

The AK6 Series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Axial lead terminals
- Rohs compliant
- Glass passivated Chip junction
- Excellent clamping capability
- Low slope resistance
- Epoxy Encapsulated.
- High temperature soldering : 260°C/10 seconds



Maximum Ratings and Characteristics (Ta=25°C unless otherwise specified)

Rating	Symbol	Value	Units
Operating junction	T_J	-55 to +155	°C
Storage Temperature Range	T_{STG}	-55 to +155	°C
Current Rating	I_{PP}	6000	A

Electrical Characteristics

PART NUMBER	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$		BREAKDOWN VOLTAGE $V_{BR}(V)$ Min. @ I_T	BREAKDOWN VOLTAGE $V_{BR}(V)$ Max. @ I_T	TEST CURRENT $I_T(mA)$	MAXIMUM CLAMPING VOLTAGE @ I_{PP} $V_c(V)$	CURRENT Rating I_{PP} measured with 8/20 μS	REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$
	AC	DC						
AK6-058C	40	58	64	70	10	110	6000	10
AK6-076C	54	76	85	95	10	140	6000	10
AK6-170C	130	170	190	210	10	260	6000	10
AK6-190C	145	190	200	245	10	290	6000	10
AK6-240C	180	240	254	281	10	340	6000	10
AK6-380C	275	380	401	443	10	520	6000	10
AK6-430C	310	430	440	490	10	625	6000	10

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise specified)

Figure 1 - Power Derating Curve

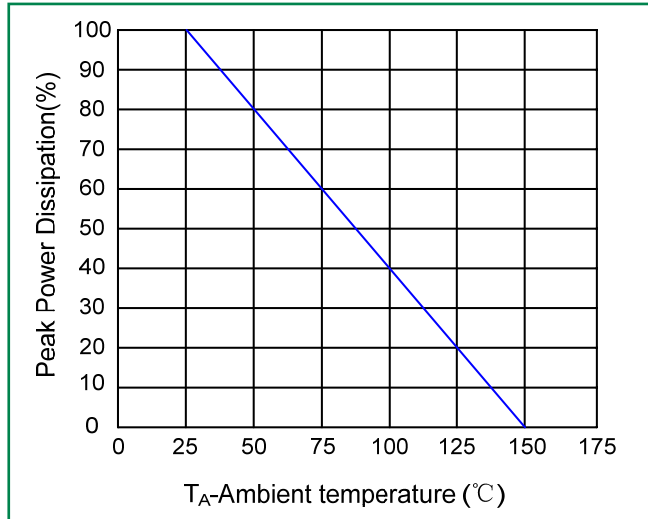
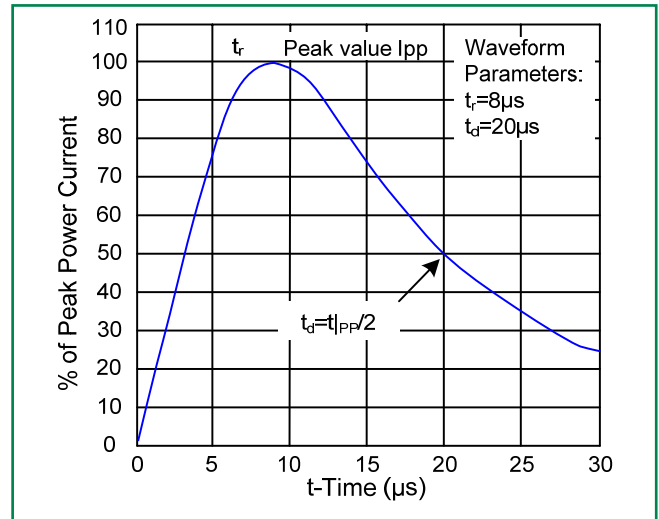
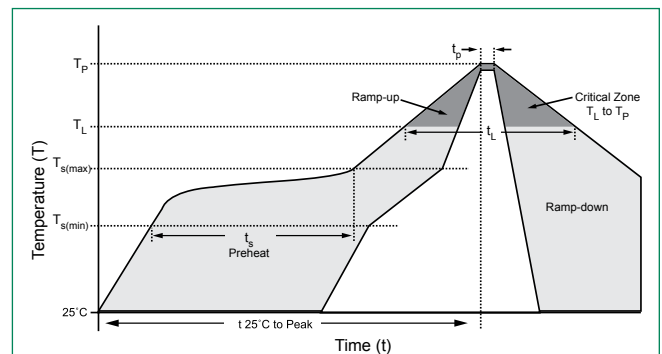


Figure 2 - Pulse Curve



Recommended Soldering Conditions

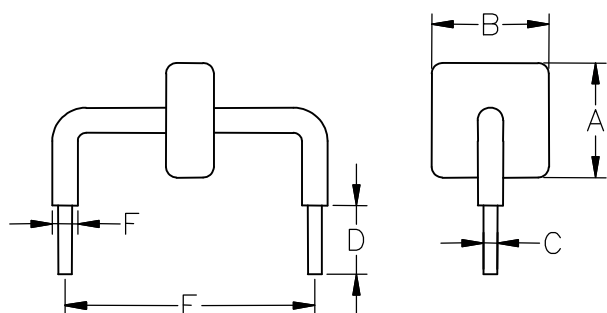
Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (min to max) (t_s)	60 – 150 seconds
Peak Temperature (T_p)		260 +0/-5°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		280°C



Flow/Wave Soldering(Solder Dipping)

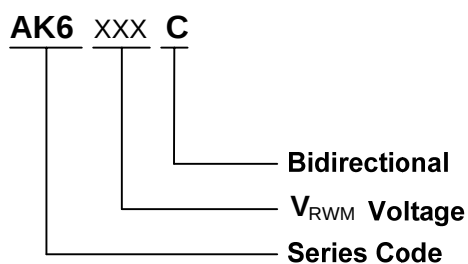
Peak Temperature :	265°C
Dipping Time :	10 seconds
Soldering :	1 time

Dimensions

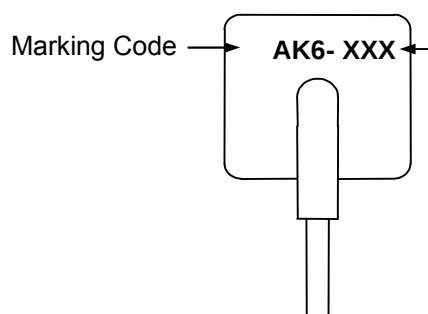


Dimensions	Inches	Millimeters
A	max 0.571	max 14.5
B	Max0.500	max 12.7
C	$\Phi 0.051 \pm 0.004$	$\Phi 1.30 \pm 0.1$
D	0.236 ± 0.040	6.0 ± 1.0
E	0.950 ± 0.028	24.15 ± 0.7
F	max 0.10	max 2.5

Part Number Code



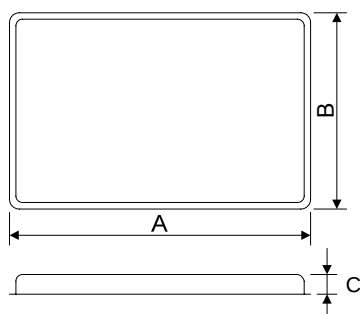
Marking Code



Packaging

Part Number	Component Package	Quantity	Packing Option
AK6		20	Box

Packaging Dementions Unit:Inches(Millimeters)



A	230.0
B	150.0
C	15.0