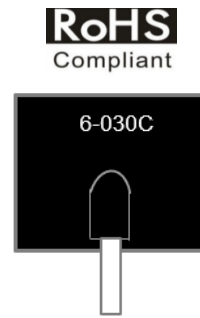


Features

- Very low clamping voltage
- Ultra compact: less than one-tenth the size of traditional discrete solutions • Sharp breakdown voltage
- Low slope resistance
- Bi-directional
- Foldbak technology for superior clamping factor
- Symmetric in leads width for easier soldering during assembly.
- IEC-61000-4-2 ESD 15kV(Air), 8kV (Contact)
- ESD protection of data lines in accordance with IEC 61000-4-2
- EFT protection of data lines in accordance with IEC 61000-4-4
- Halogen-free
- RoHS compliant
- Glass passivated junction
- Pb-free E4 means 2nd level interconnect is Pb-free and the terminal finish material is silver



Function Diagram




Maximum Ratings and Thermal Characteristics (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Operating Temperature Range	T _J	-55 to 125	°C
Storage Temperature Range	T _{STG}	-55 to 150	°C
Current Rating ¹	I _{PP}	6	kA

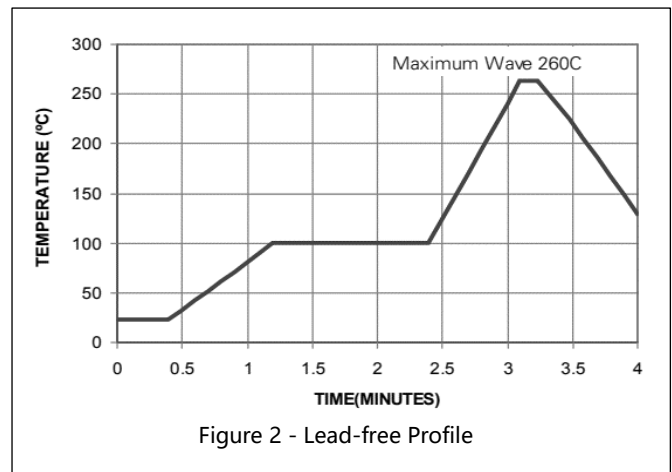
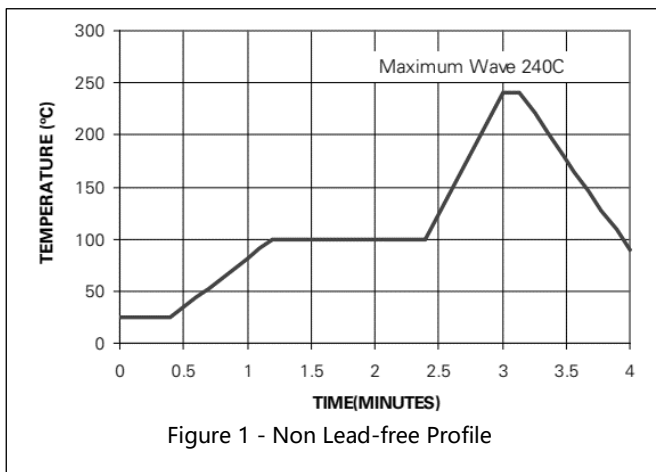
AGENCY	AGENCY FILE NUMBER
	Pending

Notes:

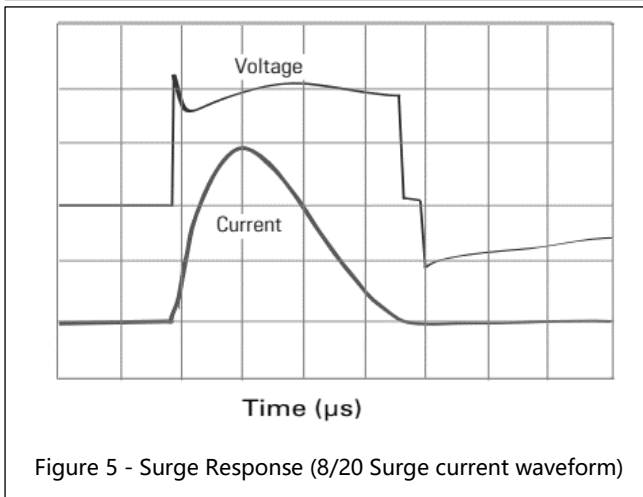
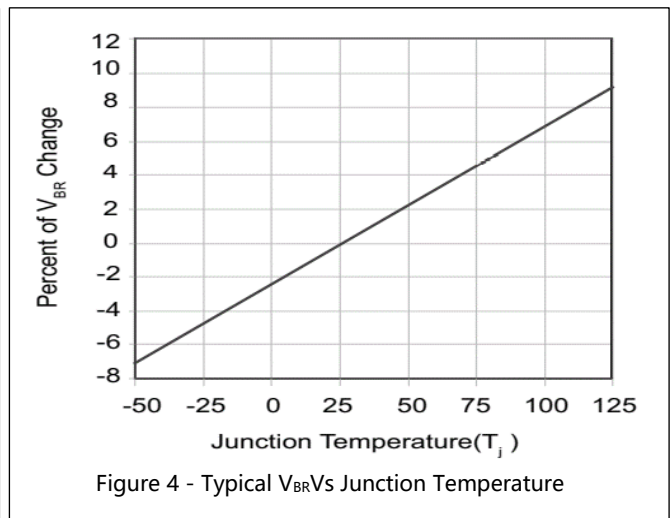
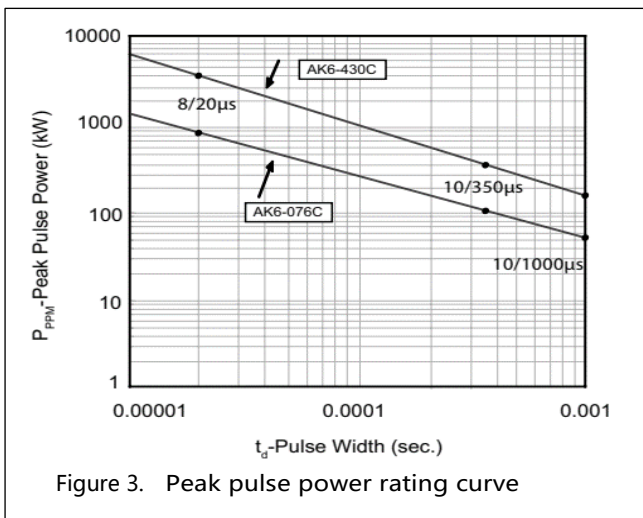
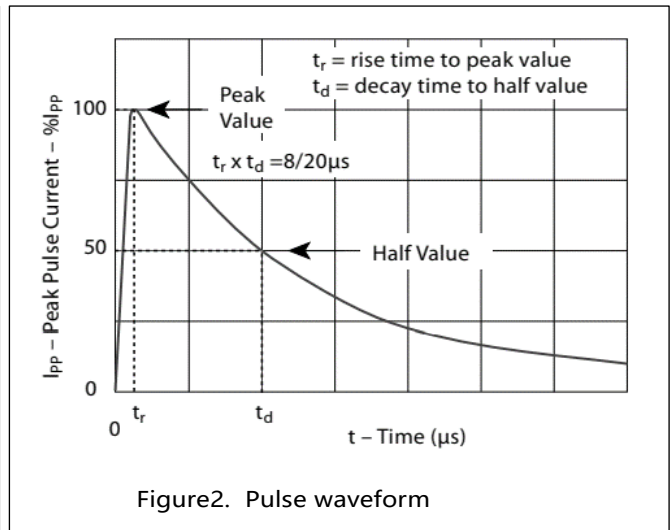
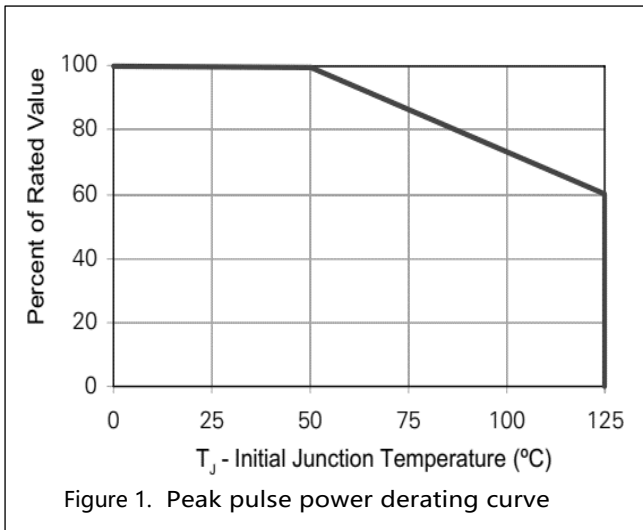
1. Rated IPP measured with 8/20µS pulse.

Characteristics (T =25°C unless otherwise noted)

Part Numbers	Part Marking	Standoff Voltage (V _{SO}) Volts	Max. Reverse Leakage (I _R) @V _{SO} μA	Typical I _R @ 85°C (μA)	Reverse Breakdown Voltage (V _{BR}) @ I _T		Test Current I _T (mA)	Max. Clamping Voltage V _{CL} @ I _{PP} Peak Pulse Current (I _{PP}) (Note 1)		Max. Temp Coefficient OF V _{BR} (%/°C)	Agency Approval 
					Min Volts	Max Volts		V _{CL} Volts	I _{PP} Amps		
SCAK6 - 015C	6-015C	15	10	15	16	19	10	28	6000	0.1	
SCAK6 - 020C	6-020C	20	10	15	22	24	10	50	6000	0.1	
SCAK6 - 025C	6-025C	25	10	15	28	30	10	60	6000	0.1	
SCAK6 - 030C	6-030C	30	10	15	32	37	10	90	6000	0.1	
SCAK6 - 042C	6-042C	42	10	15	47	51	10	105	6000	0.1	
SCAK6 - 058C	6-058C	58	10	15	64	70	10	110	6000	0.1	
SCAK6 - 066C	6-066C	66	10	15	72	80	10	120	6000	0.1	
SCAK6 - 076C	6-076C	76	10	15	85	95	10	140	6000	0.1	
SCAK6 - 100C	6-100C	100	10	15	110	122	10	165	6000	0.1	
SCAK6 - 133C	6-133C	133	10	15	147	162	10	220	6000	0.1	
SCAK6 - 170C	6-170C	170	10	15	180	220	10	260	6000	0.1	
SCAK6 - 190C	6-190C	190	10	15	200	245	10	290	6000	0.1	
SCAK6 - 240C	6-240C	240	10	15	250	285	10	340	6000	0.1	
SCAK6 - 275C	6-275C	275	10	15	300	335	10	435	6000	0.1	
SCAK6 - 300C	6-300C	300	10	15	330	366	10	470	6000	0.1	
SCAK6 - 360C	6-360C	360	10	15	381	423	10	500	6000	0.1	
SCAK6 - 380C	6-380C	380	10	15	401	443	10	520	6000	0.1	
SCAK6 - 430C	6-430C	430	10	15	440	490	10	625	6000	0.1	

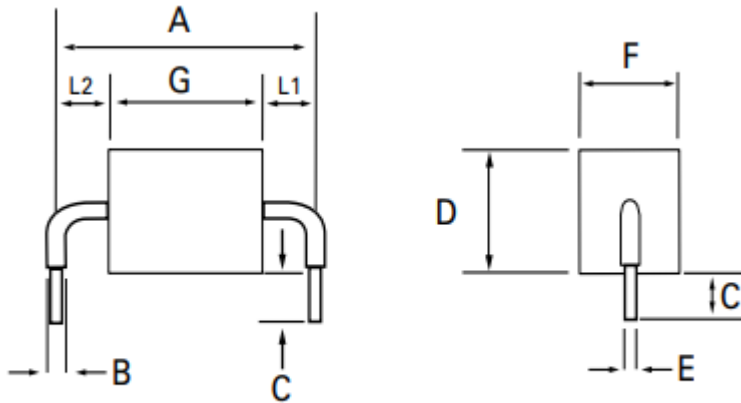
Wave Solder Profile


Ratings and Characteristic Curves (T = 25°C unless otherwise noted)



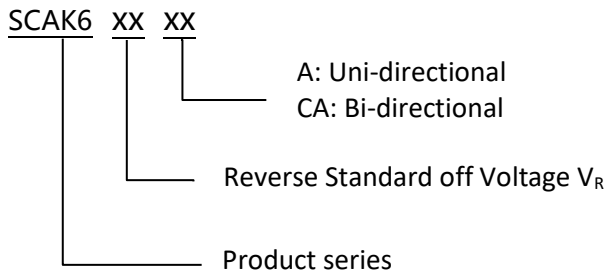
Note:
The power dissipation causes a change in avalanche voltage during the surge and the avalanche voltage eventually returns to the original value when the transient has passed.

Dimensions

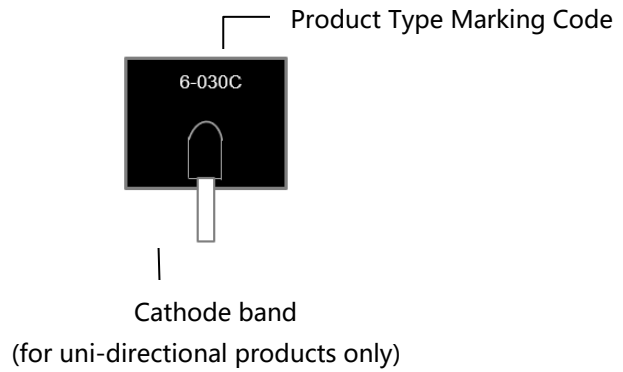


Symbol	Dimensions		
	Inches	Millimeters	
A	0.951 +/- 0.039	24.15 +/- 1.00	
B	0.094 +/- 0.024	2.4 +/- 0.60	
C	0.236 +/- 0.039	6.00 +/- 1.00	
D	0.570 Max	14.48 Max	
E	0.050 +/- 0.002	1.27 +/- 0.050	
F	0.500 Max	12.70 Max	
G	015C / 025C	0.169 +/- 0.047	4.30 +/- 1.20
	030C / 042C	0.197 +/- 0.047	5.00 +/- 1.20
	058C / 066C/ 076C	0.228 +/- 0.047	5.80 +/- 1.20
	100C	0.260 +/- 0.047	6.60 +/- 1.20
	133C	0.287 +/- 0.047	7.30 +/- 1.20
	170C / 190C	0.346 +/- 0.047	8.80 +/- 1.20
	240C	0.406 +/- 0.047	10.30 +/- 1.20
	275C / 300C	0.496 +/- 0.047	12.60 +/- 1.20
	380C/430C	0.559 +/- 0.047	14.20 +/- 1.20
L1/L2	L1=L2 tolerance +/- 0.047 inch (+/- 1.2 mm)		

Part Numbering



Part Marking



Packing

Part number	Package name	Small packing quantity	Packing method
SCAK6XXXX	AK Package	56	Bulk

Revision history of Specification

Version	Change Items	Effective Date
1.0	Initial Release	15-Aug-2021
1.1	Update Product Line	27-Mar-2025