

8x20uS 15KA Transient Voltage Suppressors

TVS Diodes - 15KA > AK15 Series



Mechanical Data

Terminal: Ag Plated leads, solderable per MIL-STD-750, Method 2026

Mounting Position: any

Features

- Glass passivated junction
- Bi-directional
- RoHS compliant
- 15KA Surge capability at 8 x 20uS waveform(per IEC-61000-4-5)
- Excellent clamping capability
- Coating powder has underwriters Laboratory



Flammability Classification 94V-0

- Operation and storage Temperature:-40°C to +125°C

Electrical Characteristics

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage $V_{BR@IT}$		Test Current	Maximum Clamping Voltage @IPP	Peak Pulse Current 8/20uS	Reverse Leakage @ V_{RWM}	Delivery Time
	VAC	VDC	Min(V)	Max(V)	IT(mA)	VC(V)	IPP	IR(μA)	Days
AK15-015C	11V	15V	16V	19V	10	28V	15KA	10	15days
AK15-020C	14V	20V	22V	24V	10	50V	15KA	10	15days
AK15-025C	17V	25V	28V	30V	10	60V	15KA	10	15days
AK15-030C	21V	30V	32V	37V	10	90V	15KA	10	15days
AK15-042C	30V	42V	47V	51V	10	105V	15KA	10	15days
AK15-058C	40V	58V	64V	70V	10	110V	15KA	10	15days
AK15-066C	45V	66V	72V	80V	10	120V	15KA	10	15days
AK15-076C	54V	76V	85V	95V	10	140V	15KA	10	15days
AK15-100C	72V	100V	110V	120V	10	165V	15KA	10	15days
AK15-133C	100V	133V	147V	162V	10	220V	15KA	10	15days
AK15-170C	130V	170V	179V	220V	10	260V	15KA	10	15days
AK15-190C	145V	190V	200V	245V	10	290V	15KA	10	15days
AK15-200C	150V	200V	222V	275V	10	330V	15KA	10	15days

Specifications are subject to change without notice

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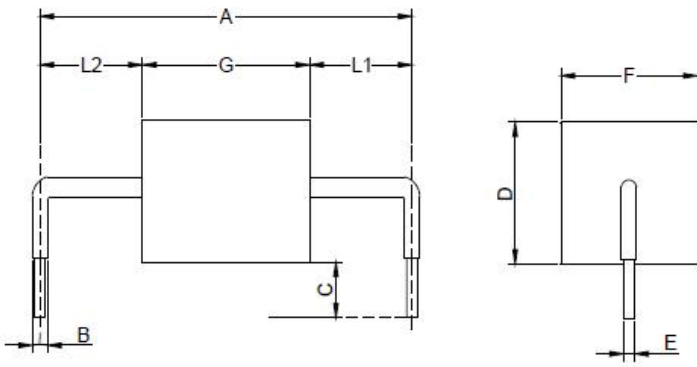
Electrical Characteristics



Part Number	Reverse Stand-Off Voltage		Breakdown Voltage $V_{BR@IT}$		Test Current	Maximum Clamping Voltage @IPP	Peak Pulse Current 8/20uS	Reverse Leakage @ V_{RWM}	Delivery Time
	V_{AC}	V_{DC}	Min(V)	Max(V)	$I_T(mA)$	$V_C(V)$	I_{PP}	$I_R(\mu A)$	Days
AK15-240C	169V	240V	250V	285V	10	340V	15KA	10	15days
AK15-380C	275V	380V	401V	443V	10	520V	15KA	10	15days
AK15-430C	310V	430V	440V	490V	10	625V	15KA	10	15days

Dimensions

PACKAGE MECHANICAL DATA



Symbol	Dimensions		
	Inches	Millimeters	
A	0.951±0.039	24.15±1.00	
B	0.094±0.024	2.40±0.60	
C	0.236±0.039	6.00±1.00	
D	0.630±0.055	16.0±1.40	
E	0.050±0.002	1.27±0.05	
F	0.571±0.055	14.5±1.40	
G	030C to 042C	0.283±0.047	7.20±1.20
	058C to 076C	0.335±0.047	8.50±1.20
L1/L2	L1=L2 tolerance±0.047inch(±1.20 mm)		

RATINGS AND V-I CHARACTERISTICS CURVES ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

FIG.1:V- I curve characteristics (Bi-directional)

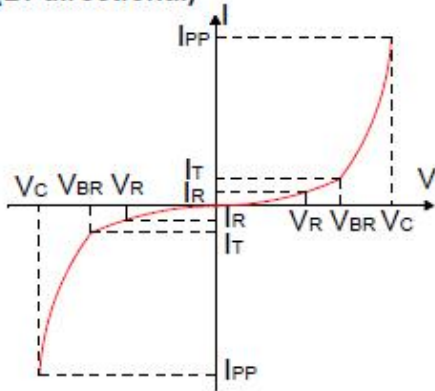


FIG.2:V- I curve characteristics (Bi-directional with negative resistance)

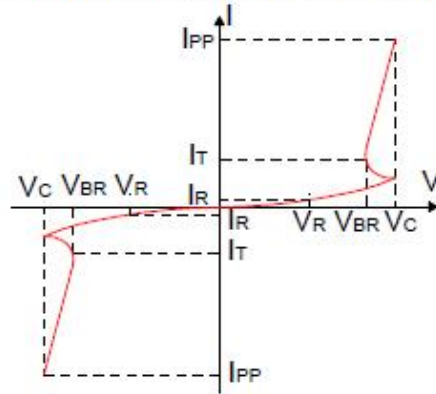


FIG.3: Typical V_{BR} vs junction temperature

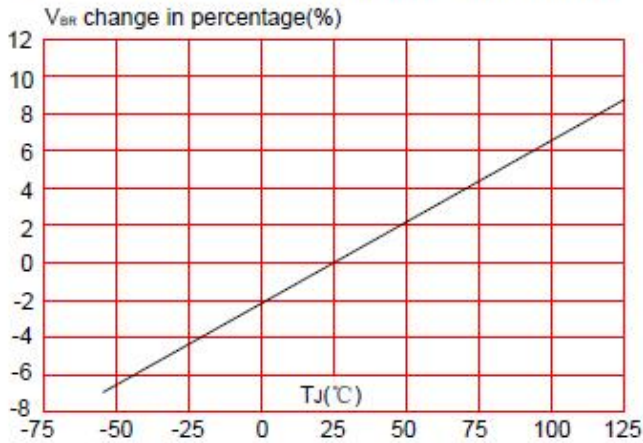


FIG.4: Pulse waveform

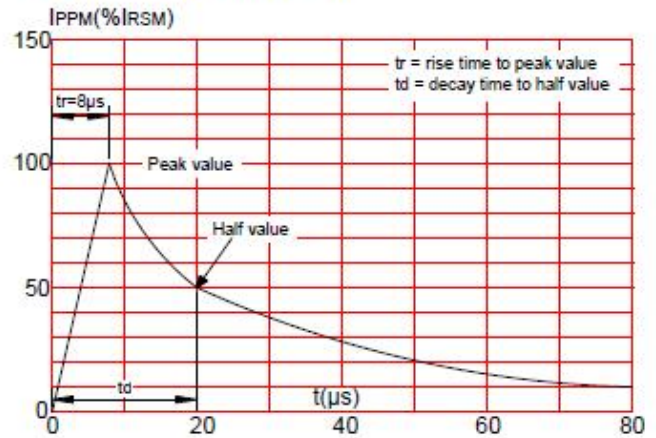
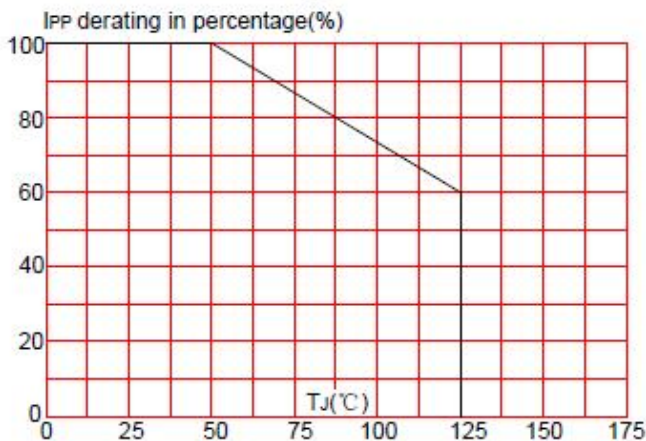
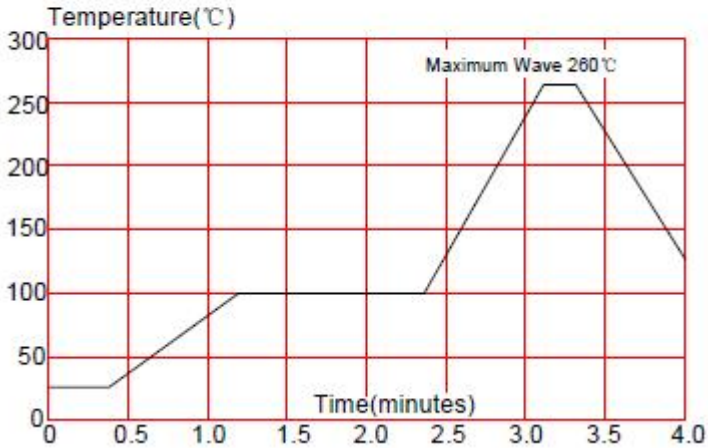


FIG.5: Pulse derating curve



SOLDERING PARAMETERS

FIG.6: Lead-free profile



Tab1: Flow/Wave soldering

Peak temperature	265°C
Dipping time	10 seconds
Soldering	1 time

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