



WSxxxK03

High Current TVS

Description

The AK3 Series of high current transient suppressors have been specially designed for A.C. line protection and high power DC bus clamping applications. They provide a clamping voltage lower than the avalanche voltage. Therefore, any voltage rise due to increased current conduction is contained to a minimum, providing the best possible protection level. They can also be connected in series or/and parallel to create very high capacity protection solutions.



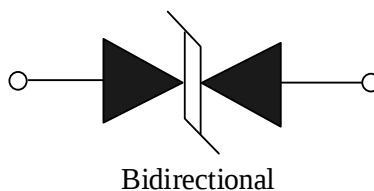
Features

- Bi-directional
- Very low clamping voltage
- Sharp breakdown voltage
- Low slope resistance
- Foldback technology for superior clamping factor
- RoHS compliant

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Units
Peak Current Rating per 8/20 μs IEC 61000-4-5	I_{PP}	3	KA
Operating Junction Temperature Range	T_J	-55 to + 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

Pin Configuration



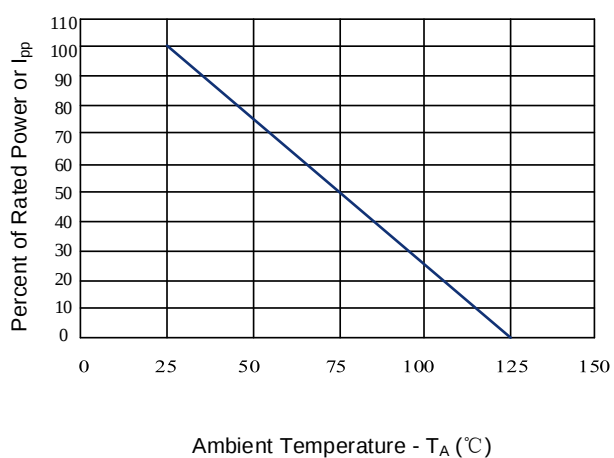
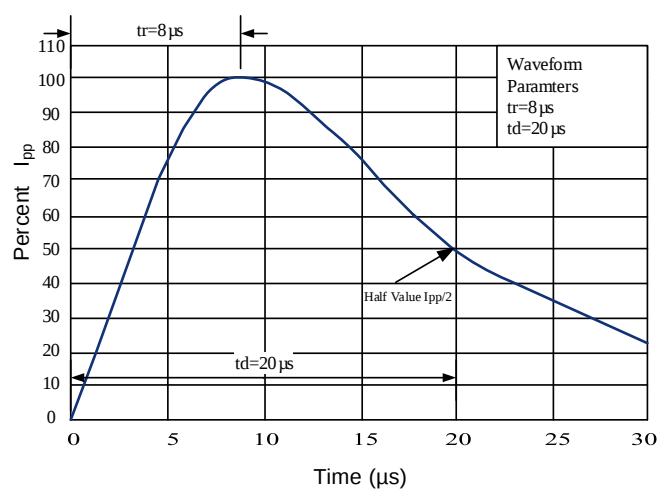
Electrical Characteristics($T_A=25^{\circ}\text{C}$)

Part Number	Reverse Stand off Voltage V_{RWM} (Volts)	Breakdown Voltage $V_{BR}(\text{Volts})@I_T$		Test Current I_T (mA)	Maximum Clamping Voltage $V_C@I_{PP}$ (Volts)	Peak Pulse Current I_{PP} (Amps)	Maximum Reverse Leakage $I_R@V_{RWM}$ (μA)
		MIN	MAX				
WS015K03	15	16	19	10	28	3000	20
WS030K03	30	32	37	10	90	3000	20
WS058K03	58	64	70	10	110	3000	20
WS066K03	66	72	80	10	120	3000	20
WS076K03	76	85	95	10	140	3000	20
WS100K03	100	110	122	10	165	3000	20
WS170K03	170	179	220	10	260	3000	20
WS190K03	190	200	245	10	290	3000	20
WS240K03	240	250	285	10	340	3000	20
WS300K03	300	330	366	10	470	3000	20
WS380K03	380	401	443	10	520	3000	20
WS430K03	430	440	490	10	625	3000	20

Note: Using 8/20us wave shapes as defined in IEC 61000-4-5.

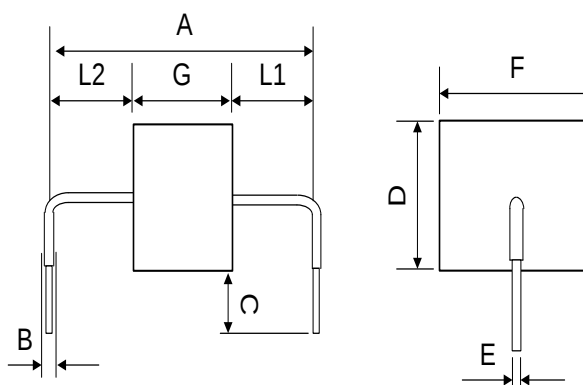
Typical Characteristics

Figure 1: Pulse Derating Curve

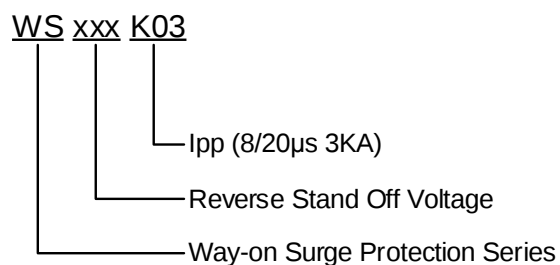
Figure 2: 8/20 μs Pulse Waveform

Dimensions

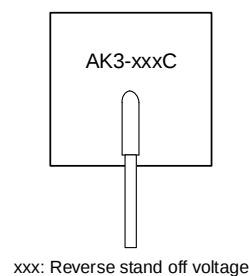
Ref. (mm)	Millimeters
A	24.15±1.00
B	2.40±0.60
C	6.00±1.00
D	14.0 max
E	1.27±0.05
F	14.0 max
G-015	5.0 max
G-030	6.0 max
G-058/066/076	8.0 max
G-100	10.0 max
G-170/190	12.0 max
G-240/300	16.0 max
G-380/430	20.0 max
L1=L2 tolerance ± 1.2mm	



Part Number System



Part Marking System



Package Information

Part Number	Description	Quantity (pcs)
WSxxxK03	Box	84

Contact Information

No.1001, Shiwan(7) Road, Pudong District, Shanghai, P.R.China.201207

Tel: +86-21-68969993 Fax: 86-21-50757680 Email: market@way-on.com

WAYON website: <http://www.way-on.com>

For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.