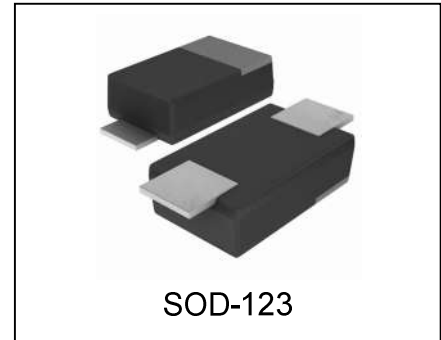


## Features

- Bidirectional Protection
- Fast Response Time : Typically < 1ns
- Excellent Clamping Capability
- Low clamping voltage
- Built-in Strain relief
- Low inductance
- Low profile package
- High temperature solder:260°C/10 seconds at terminal
- IEC 61000-4-2 (ESD) ±30kV(air), ±30kV(contact)



## Mechanical Characteristics

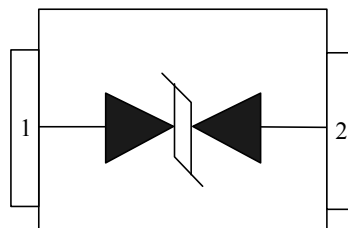
- SOD-123 package
- Matte tin lead - free plated
- Marking: Marking Code
- RoHS Compliant

## Applications

- I/O Interfaces
- Power lines
- Automotive and Telecommunication
- Industrial Electronics

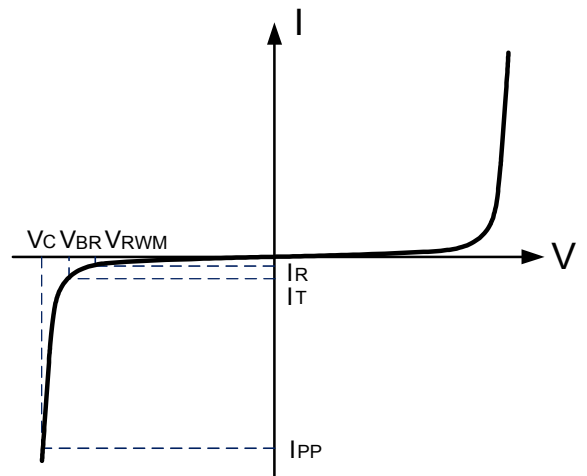
Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak pulse power (8/20μs)	P <sub>PP</sub>	5000	W
Peak pulse current (8/20μs)	I <sub>PP</sub>	150	A
Operating Junction Temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage Temperature range	T <sub>STG</sub>	-55 to + 150	°C

## Pin Configuration



Electrical Characteristics

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current



Electrical Characteristics

WS24P4S1-B						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	26.7		29.5	V
Reverse Leakage Current	$I_R$	$V_{RWM}=24V, T=25^{\circ}C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=150A, t_p=8/20\mu s$			35.0	V
Junction Capacitance	$C_j$	$V_{BIAS}=0V, f=1MHz$		320		pF

Typical Characteristics

Figure 1: Peak Pulse Power Rating Curve

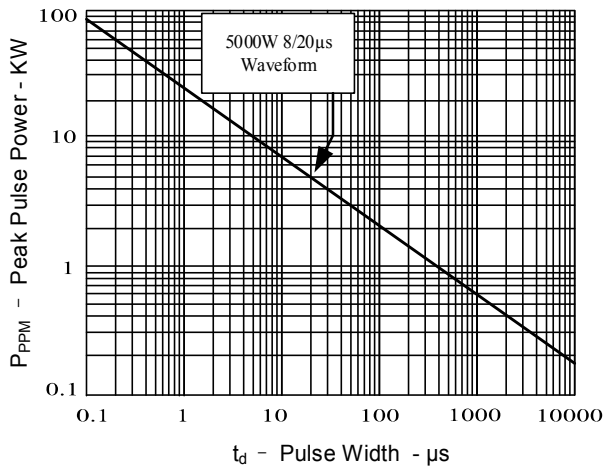


Figure 2: Pulse Derating Curve

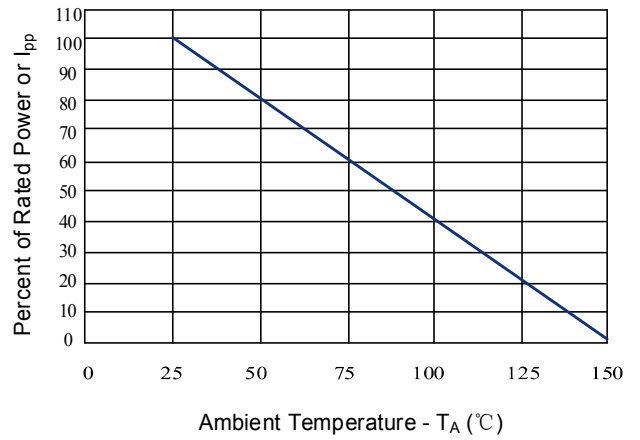


Figure 3: 8/20µs Pulse Waveform

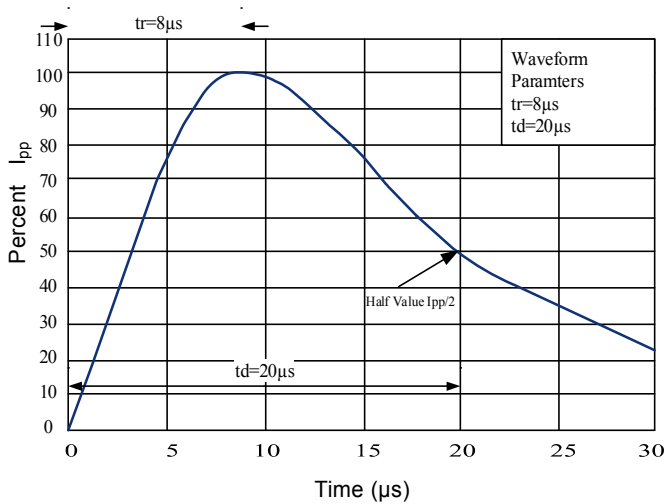
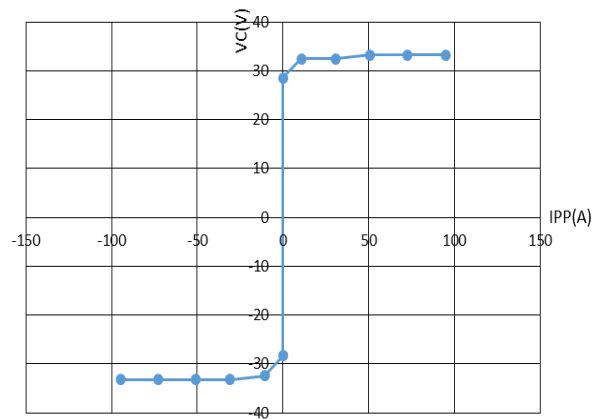
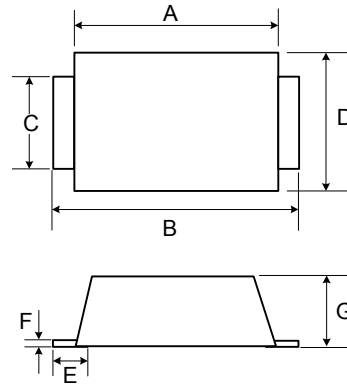


Figure 4: Clamping Voltage Curve(8/20µs, 2 Ω)

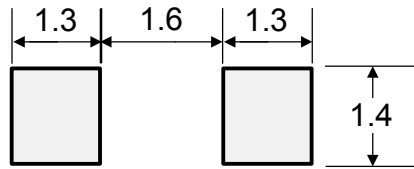


Outline Drawing – SOD-123

Ref. (mm)	Millimeters	
	Min.	Max.
A	2.50	2.90
B	3.40	3.90
C	0.70	1.10
D	1.50	1.80
E	0.45	0.95
F	0.05	0.26
G	0.90	1.20



Recommended Solder Pad Layout



Dimensions in mm

Marking Code



Package Information

Package Type	Description	Quantity (pcs)
SOD-123	Tape & Reel -8mm/7" tape	3000

Contact Information

**CYG WAYON CIRCUIT PROTECTION CO., LTD.**

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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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.