

**Applications**

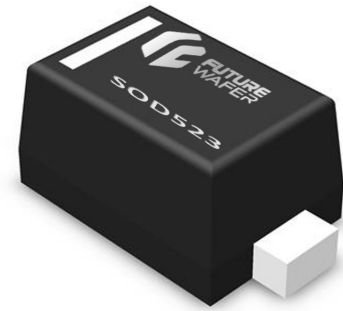
- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 2.0 Power and Data line Protection

**Feature**

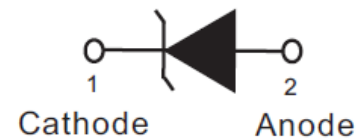
- With TVS Diode
- ESD Protection:Level 4
- Low clamping voltage
- 100 Watts peak pulse power per line( $t_p=8/20\mu s$ )
- Ultra low capacitance:20pf max.(any I/O to GND.)
- Protection one line I/O port

**IEC Compatibility**

- EN61000-4
- 61000-4-2(ESD):Level 4
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):3A-8/20us



SOD523


**Mechanical Characteristics**

- Molded JEDEC SOD523 package
- Packaging:Tape and Reel
- Flammability rating UL 94V-0
- Halogen Free

**Device Characteristics**

<b>Maximum Ratings@25 unless otherwise specified</b>			
Parameter	Symbol	Value	Units
Peak pulse power ( $t_p=8/20\mu s$ )	PPP	120	Watts
Operating Temperature	TJ	-55~150	°C
Storage Temperature	TSTG	-55~150	°C

## Electrical Characteristics

Parameter	Symbol	Condition	min	max	Units
Reverse Stand-off Voltage	VRWM			36	V
Reverse Breakdown Voltage	VBR	I <sub>Z</sub> =1mA	40		V
Reverse Leakage Current	I <sub>R</sub> (max)	@VRWM		1	uA
Forward Voltage	V <sub>F</sub> (max)	I <sub>F</sub> =15mA		1.15	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A t <sub>p</sub> =8/20us		55	V
Peak Pulse Current	I <sub>PP</sub>	t <sub>p</sub> =8/20us		3	A
Junction Capacitance	C I/O	Pin capacitance to GND. V <sub>dc</sub> =0V, f=1MHZ		20	pf

## Rating and characteristic curve

FIGURE 1  
Power Derating Curve

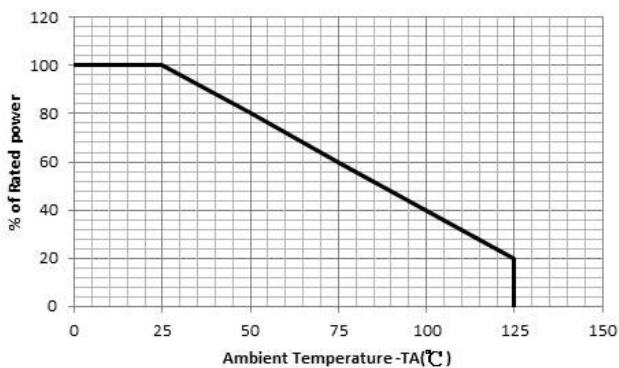
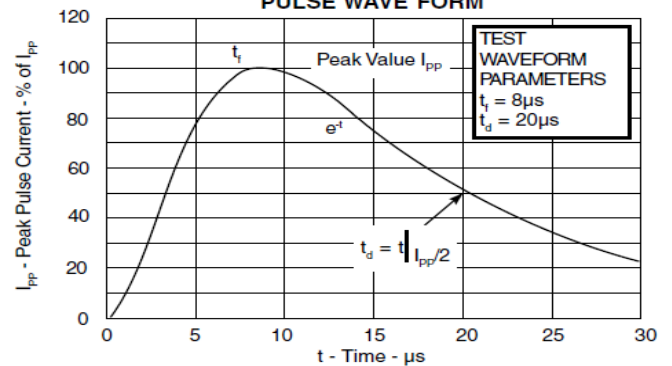


FIGURE 2  
PULSE WAVE FORM



**V<sub>C</sub> (Clamping Voltage)**

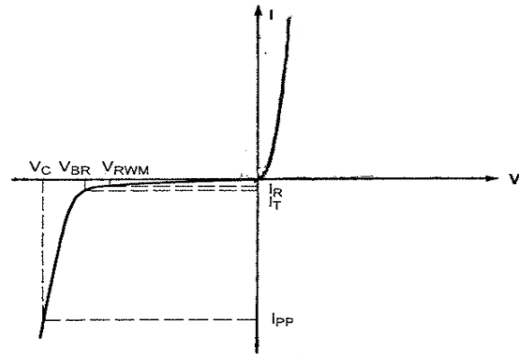
 Voltage across the TVS diode at the I<sub>PP</sub> (peak pulse current)

**V<sub>BR</sub> (Reverse Break Down Voltage)**

Voltage at which the TVS diode turns on (conducting state)

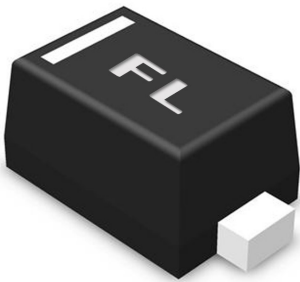
**V<sub>RWM</sub> (Reverse Standoff Voltage)**

Voltage at which the TVS diode turns off (high impedance state)



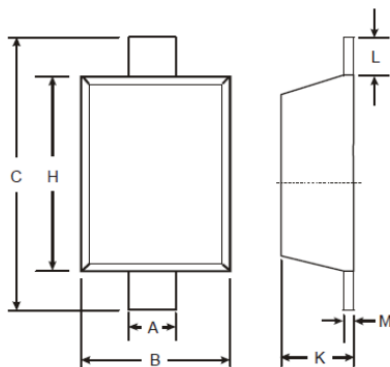
## Ordering information

### Marking codes

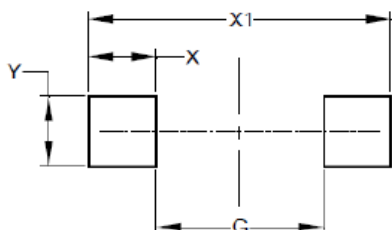


Part No.	Marking Code
FESD36V	FL
Quantity	5,000pcs

## Package Information



SOD523		
Dim	Min	Max
A	0.25	0.35
B	0.70	0.90
C	1.50	1.70
H	1.10	1.30
K	0.55	0.65
L	0.10	0.30
M	0.10	0.12
<b>All Dimensions in mm</b>		



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70



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