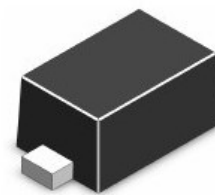


Applications

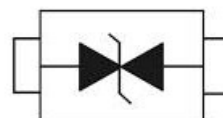
- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 2.0 Power and Data line Protection



SOD523

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:15pf max.(any I/O to GND.)
- Protection one line I/O port



IEC Compatibility

- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:±8kv,Air:±15kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):4A-8/20us

Mechanical Characteristics

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

Device Characteristics

Maximum Ratings@25 unless otherwise specified			
Parameter	Symbol	Value	Units
Peak pulse power ($t_p=8/20\mu s$)	P_{PP}	100	Watts
Operating Temperature	T_J	-55~150	°C
Storage Temperature	T_{STG}	-55~150	°C

Electrical Characteristics

Parameter	Symbol	Condition	min	max	Units
Reverse Stand-off Voltage	V_{RWM}	Pin 2 to 1/Pin 1 to 2		5	V
Reverse Breakdown Voltage	$V_{BR(min)}$	$I_z=1mA$ Pin to Pin	5.1	7.5	V
Reverse Leakage Current	$I_R(max)$	@ V_{RWM}		2.0	μA
Forward Voltage	$V_F(max)$	$I_F=15mA$		1.15	V
Clamping Voltage	V_C	$I_{PP}=5A$ $t_p=8/20\mu s$		12	V
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$		5	A
Junction Capacitance	$C_{I/O}$	Pin capacitance to GND. $V_{dc}=0V, f=1MHz$		15	pf

Rating and characteristic curve

FIGURE 1
Power Derating Curve

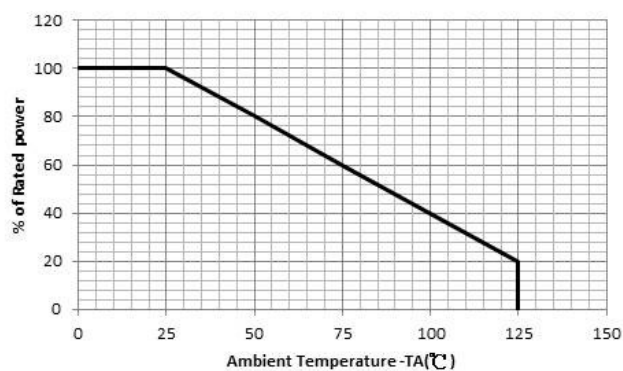
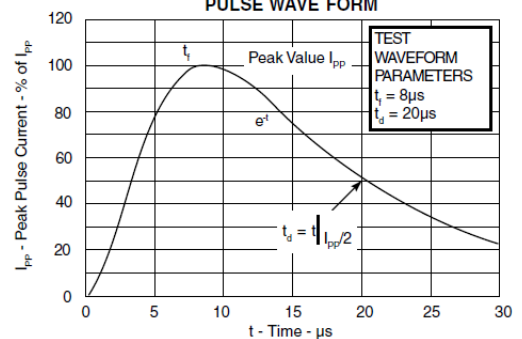
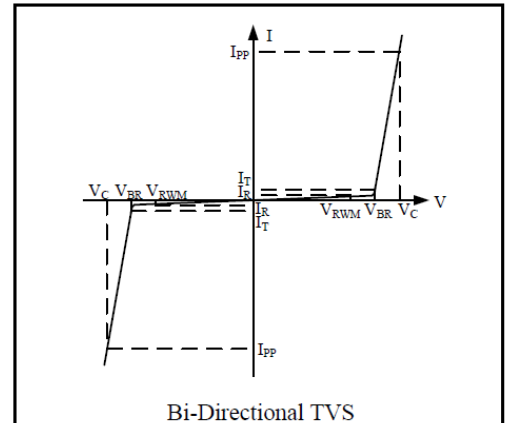


FIGURE 2
PULSE WAVE FORM



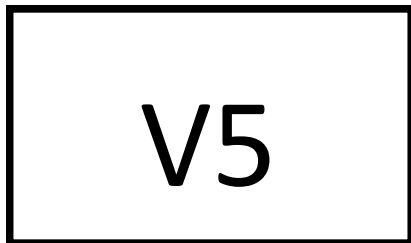
Electrical Characteristics (T = 25°C)

Symbol	Parameter
V_{RWM}	Nominal Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Reverse Breakdown Voltage @ I_T
I_T	Test Current for Reverse Breakdown
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Maximum Peak Pulse Current
C_{ESD}	Parasitic Capacitance
V_R	Reverse Voltage
f	Small Signal Frequency

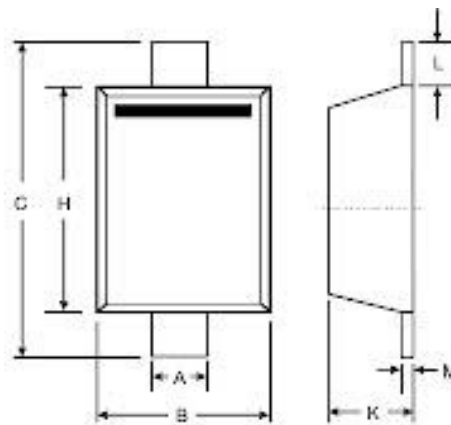


Ordering information

Marking codes



Part No.	Marking Code
FESD5VB	V5
Quantity	3,000pcs



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
All Dimensions in mm		



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