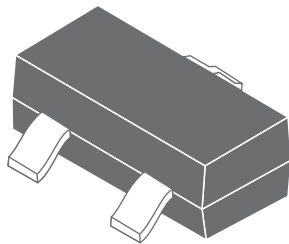
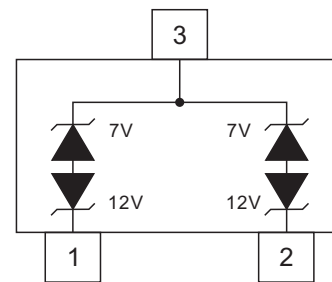


# Electro-Static Discharge TESD712G2B Asymmetrical TVS Diode for Extended Common-Mode RS-485

## SOT-23



## Pin Configuration



## Features

- 400 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- Protects two +12V to -7V line
- Low capacitance
- RoHS Compliant

## IEC Compatibility

- IEC61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 17A (8/20 $\mu s$ )

## Applications

- Protection of RS-485 transceivers with extended common-mode range
- Security systems
- Automatic Teller Machines
- HFC systems
- Networks

## Mechanical Characteristics

- JEDEC SOT-23 Package
- Molding Compound Flammability Rating:UL 94V-O
- Weight 8.0 Milligrams(Approximate)
- Quantity Per Reel:3000pcs
- Reel Size:7 inch
- Lead Finish:Lead Free

Maximum Ratings( $T_A=25^{\circ}\text{C}$  unless otherwise specified )

Parameter		Symbol	Value	Units
IEC 61000-4-2 ESD Voltage	Air Model	$V_{ESD}^{(1)}$	$\pm 15$	kV
	Contact Model		$\pm 8$	
Peak Pulse Power( $t_p=8/20\mu\text{s}$ )		$P_{PP}$	400	Watts
Operating Temperature Range		$T_J$	-55~150	$^{\circ}\text{C}$
Storage Temperature Range		$T_{STG}$	-55~150	$^{\circ}\text{C}$

(1).Device stressed with ten non-repetitive ESD pulses, Per channel(I/O to GND).

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

TESD712G2B(Marking:712)							
Parameter	Symbol	Conditions	Pin1 to 3 and 2 to 3 (12V TVS)		Pin3 to 1 and 3 to 2 (7V TVS)		Units
			Min.	Max.	Min.	Max.	
Reverse Stand-off Voltage	$V_{RWM}$	Pin3 to 1 or Pin2 to 3		12		7	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	13.3		7.5		V
Clamping Voltage	$V_C$	$I_{PP}=5\text{A}$		20		10	V
Reverse Leakage Current	$I_R$	@ $V_{RWM}$		1		20	$\mu\text{A}$
Junction Capacitance	$C_{I/O}$	0Vdc,f=1MHz		75		75	pF

Ratings and Characteristic Curves

Fig.1 Non-repetitive Peak Pulse Power V.S Pulse Time

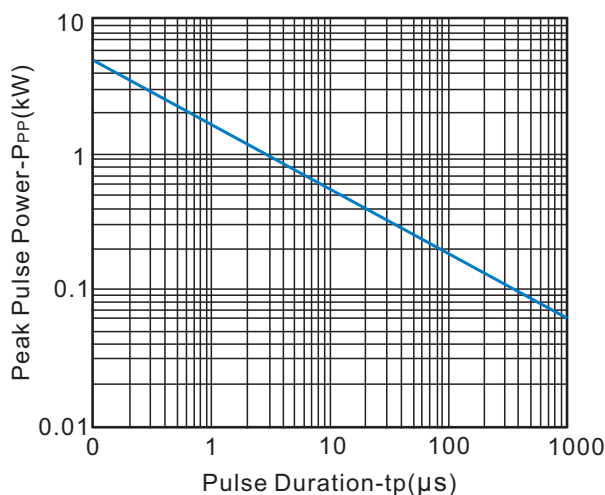
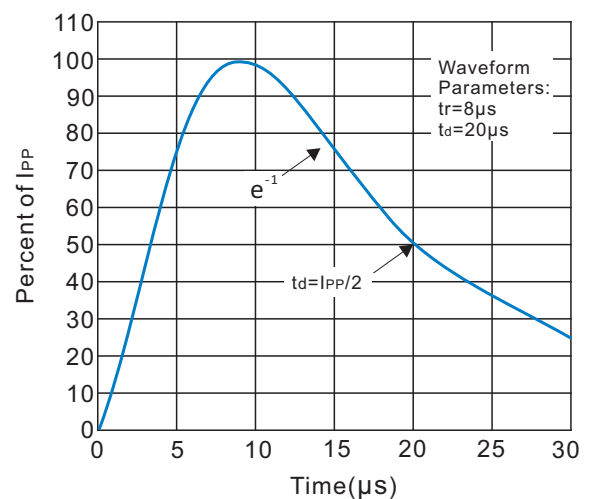


Fig.2 Pulse Waveform



## Ratings and Characteristic Curves

Fig.3 Power Derating Curve

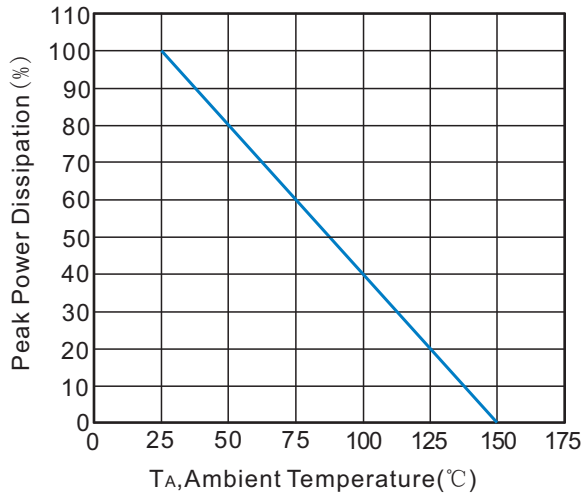
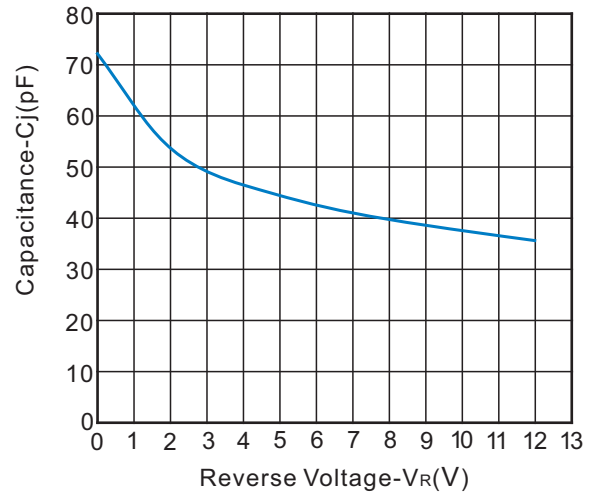
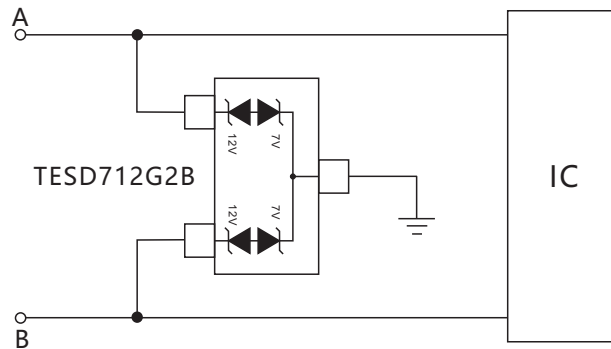


Fig.4 Capacitance VS.Reverse Voltage

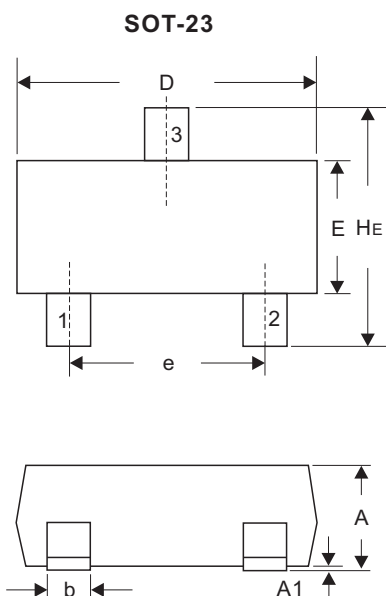


## Application

### RS485 Protection

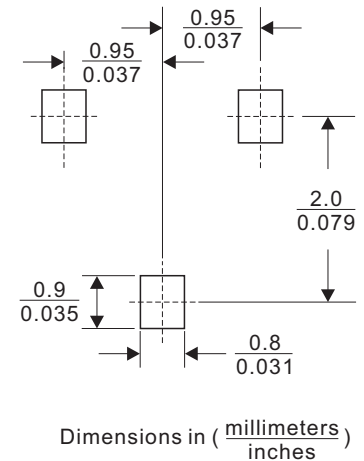


## Dimensions(SOT-23)



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.89	1.11	0.035	0.044
A1	0.01	0.10	0.001	0.004
b	0.37	0.50	0.015	0.020
c	0.09	0.18	0.003	0.007
D	2.80	3.04	0.110	0.120
E	1.20	1.40	0.047	0.055
e	1.78	2.04	0.070	0.081
L	0.35	0.69	0.014	0.029
He	2.10	2.64	0.083	0.104

### Recommended Mounting Pad Layout



单击下面可查看定价，库存，交付和生命周期等信息

[>>SPSEMI](#)