

## Transient Voltage Suppressors for ESD protection

### DESCRIPTION

The FESD5Z3.3C is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

This device has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).

### FEATURES

IEC61000-4-2 (ESD)  $\pm 30\text{kV}$  (Air),  
 $\pm 30\text{kV}$  (Contact)  
IEC61000-4-4 (EFT) 40A (5/50 $\eta$ s)  
Peak power dissipation: 60W (8/20 $\mu$ s)  
Protects one I/O line  
Low clamping voltage  
Working voltages : 3.3V  
Low leakage current

### MACHANICAL DATA

SOD-523 package  
Flammability Rating: UL 94V-0  
High temperature soldering guaranteed:  
260°C/10s  
Packaging: Tape and Reel  
Reel size: 7 inch

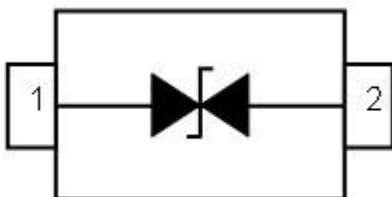
### ORDERING INFORMATION

Device: FESD5Z3.3C  
Package: SOD-523  
Material: Halogen free  
Packing: Tape & Reel  
Quantity per reel: 3,000pcs

### APPLICATIONS

Cell Phone Handsets and Accessories  
Microprocessor based equipment  
Personal Digital Assistants (PDA's)  
Notebooks, Desktops, and Servers  
Portable Instrumentation  
Networking and Telecom  
Serial and Parallel Ports  
Peripherals

### PIN CONFIGURATION



### PACKAGE OUTLINE





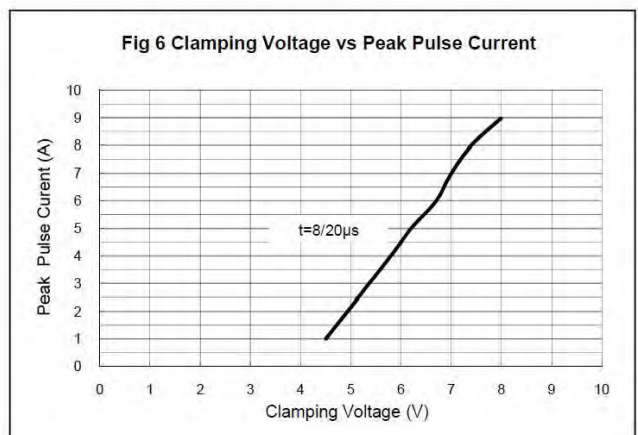
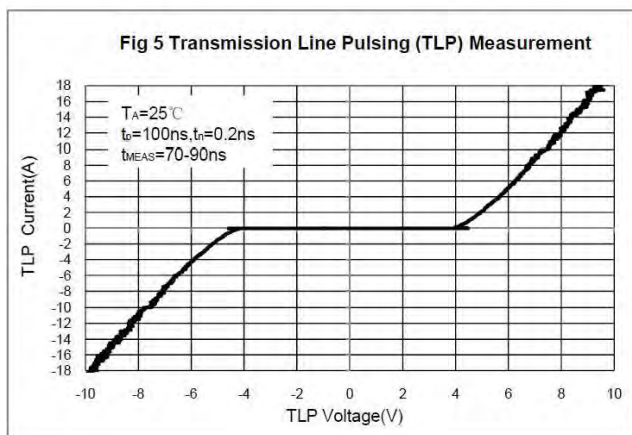
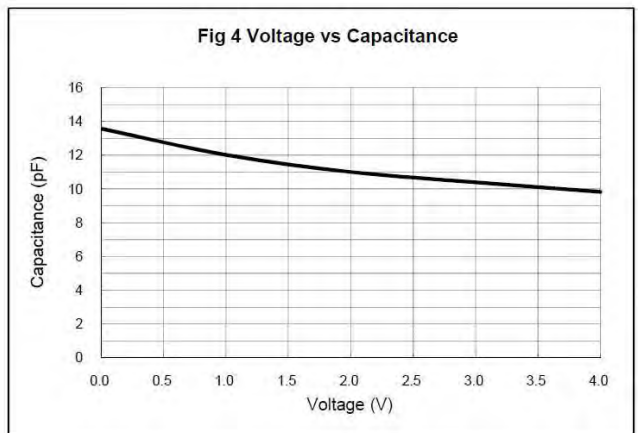
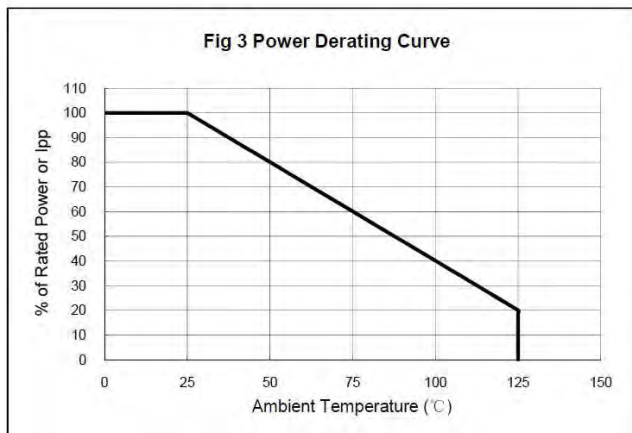
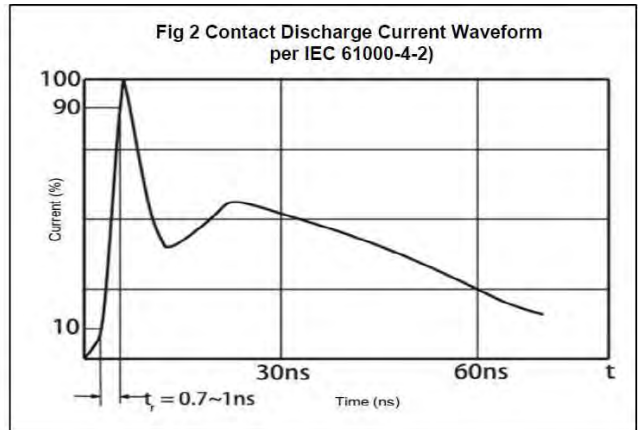
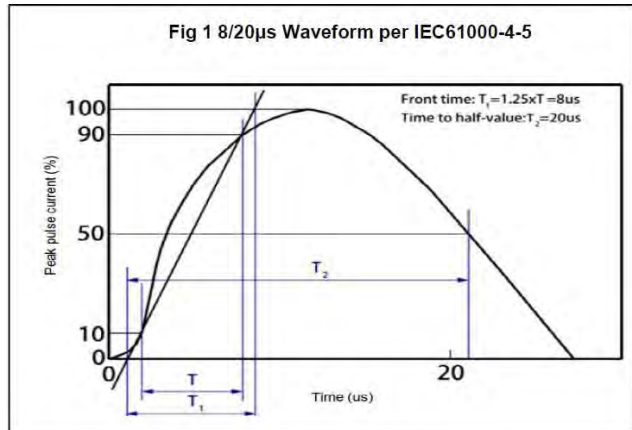
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ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Contact)	$\pm 30$	kV
	ESD per IEC 61000-4-2 (Air)	$\pm 30$	
$P_{PP}$	Peak Pulse Power (8/20 $\mu$ s)	60	W
$T_{OPT}$	Operating Temperature	-40~150	$^{\circ}$ C
$T_{STG}$	Storage Temperature	-40~150	$^{\circ}$ C

ELECTRICAL CHARACTERISTICS (Tamb=25 $^{\circ}$ C )						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1mA$	3.6			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 3.3V$			1.0	$\mu$ A
$V_C$	Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s$			6.5	V
$V_C$	Clamping Voltage	$I_{PPmax} = 5A, t_p = 8/20\mu s$			12.0	V
$V_{CTLTP}$	TLP Clamping Voltage	$I_{PP} = 16A$ IEC61000-4-2 Level 4 equivalent ( $\pm 8kV$ Contact, $\pm 15kV$ Air)		9		V
$C_J$	Junction Capacitance	$V_R = 0V, f = 1MHz$			18.5	pF

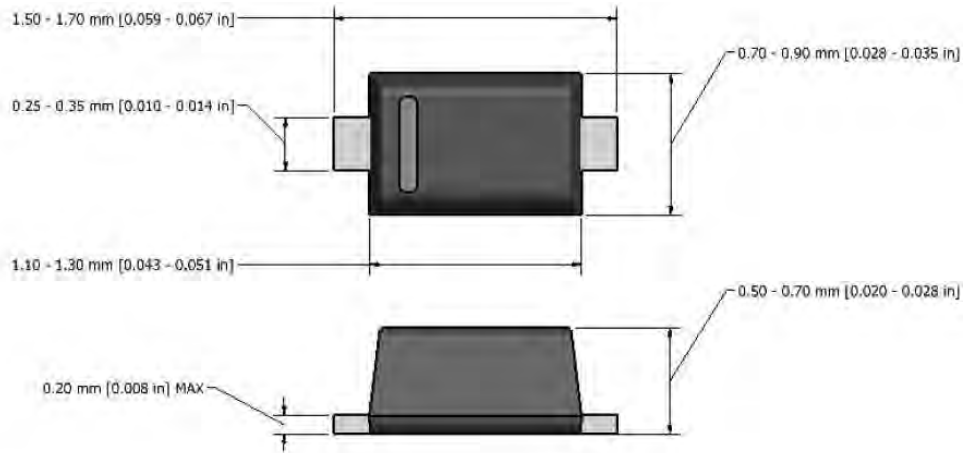
## Transient Voltage Suppressors for ESD protection

### ELECTRICAL CHARACTERISTICS CURVE



## Transient Voltage Suppressors for ESD protection

### SOD-523 PACKAGE OUTLINE DIMENSIONS



**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.