

RSDS12C

Ultralow Capacitance TVS Array

General Description

The Ultralow Capacitance Transient Voltage Suppressors are designed to low voltage, integrated circuits from transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), Surge and other induced voltages.

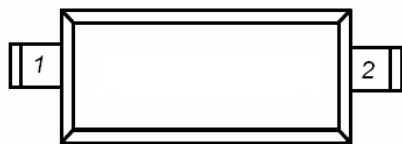
Applications

- Ethernet – 10/100/1000 Base T
- Cellular Phones
- Handheld – Wireless Systems
- Personal Digital Assistant(PDA)
- USB Interface

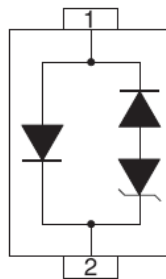
Features

- 350 W Peak Pulse Power per Line (tp=8/20μs)
 - Unidirectional & Bidirectional Configurations
 - Replacement for MLV (0805)
 - Protects One Power or I/O Port
 - ESD Protection > 40 kilovolts
 - Low Clamping Voltage
 - Available in Multiple Voltage Type Ranging from 3V to 24V
 - Ultra Low Capacitance:3pF Typical
 - RoHS Compliant in Lead-Free Versions
- IEC61000-4-2(ESD) 15kV(air), 8kV(Contact)**
IEC61000-4-4(EFT) 40A(5/50ns)
IEC61000-4-5(Surge)24A(8/20us),Level2(Line-G round)& Level 2(Line- Line)

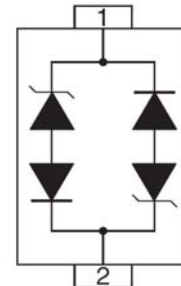
SOD-323



UNIDIRECTIONAL



BIDIRECTIONAL



Absolute Maximum Ratings @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Units
Peak Pulse Power (tp = 8/20μs) - See Fig1.	P _{PP}	350	W
Storage Temperature Range	T _{STG}	-55 to 150	°C
Operating Junction Temperature Range	T _J	-55 to 150	°C
Peak Pulse Power (tp = 8/20μs)	I _{PPM}	20	A

Electrical Characteristics Per line @ 25°C Unless Otherwise Specified

Part Numbers	V _{BR}			I _T	V _{RM}	V _C	I _D	V _F	I _F	C
	Min.	Typ.	Max.					Max.		Typ. 0v bias
	V	V	V					mA		
RSDS12C	13.5	14.6	15.7	1	12	20	20	1.25	200	3

RSDS12C

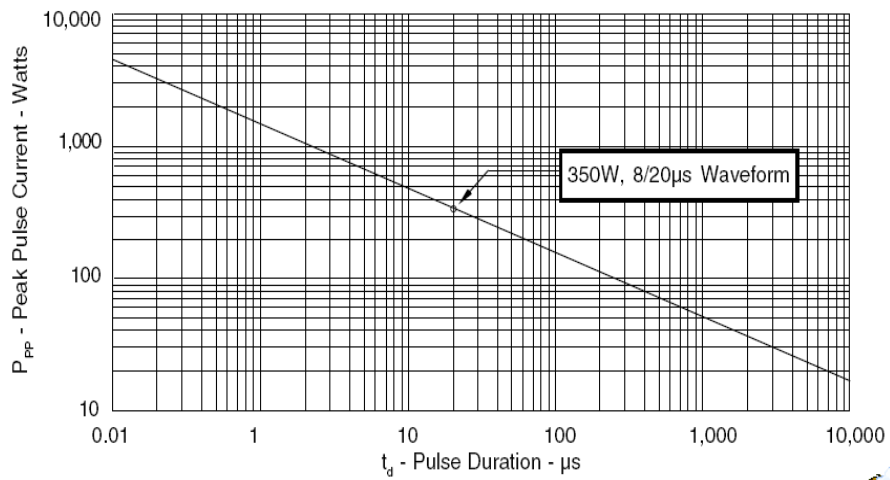


Fig1. Peak Pulse Power VS Pulse Time

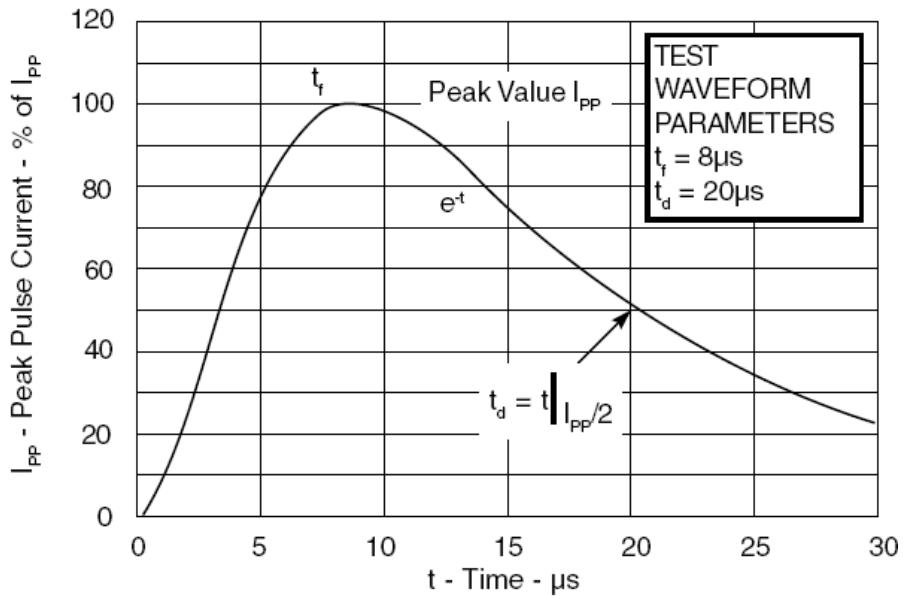
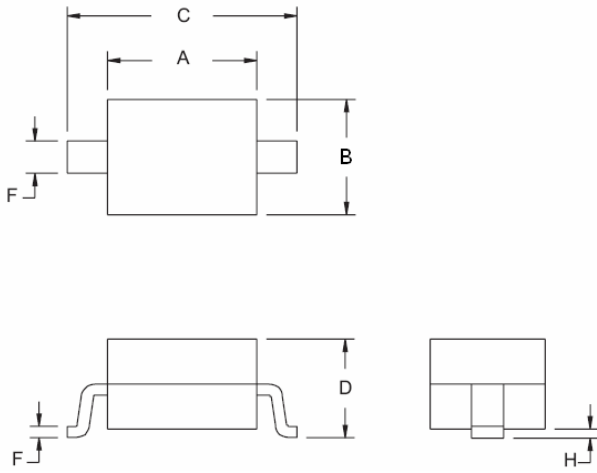

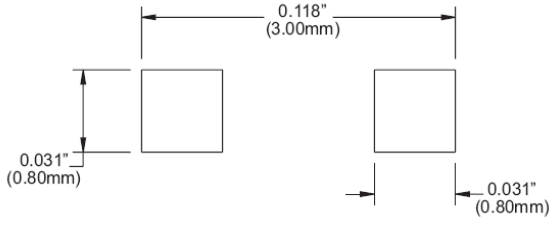


Fig2. Pulse Wave Form

SOD-323 Mechanical Data						
Package Outline		SOD-323 Package				
 <p>Technical drawings showing the package outline with dimensions A, B, C, D, F, and H. The top view shows dimensions A and C. The side view shows dimensions B and D. The lead view shows dimensions F and H.</p>		 <p>3D perspective view of the SOD-323 package.</p>				
Mounting Pad		Package Dimensions				
 <p>Technical drawing of the mounting pad with dimensions: 0.118" (3.00mm) for the width, 0.031" (0.80mm) for the height, and 0.031" (0.80mm) for the lead width.</p>		Dim	Millimeters		Inches	
			Min	Max	Min	Max
		A	1.60	1.90	0.063	0.075
		B	1.15	1.45	0.045	0.057
		C	2.39	2.70	0.094	0.106
		D	0.92	1.10	0.036	0.043
		E	0.25	0.40	0.010	0.016
		F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004		
Notes:						
<ol style="list-style-type: none"> 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burns, 						