

## Electro-static Discharge (ESD)

### SLC12C

#### Features

- 500Watts Peak Pulse Power per line( $t_p=8/20\mu s$ )
- Protects One Power or I/O Port
- Low Leakage Current
- Low Clamping Voltage
- Low Capacitance:3.0pF



#### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

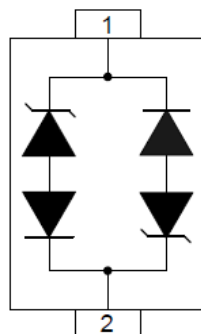
#### Mechanical Characteristics

- JEDEC SOD-323 package
- Molding compound flammability rating:  
UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS/WEEE Compliant

#### Applications

- Cellular Phones
- Personal Digital Assistants (PDAs)
- Ethernet-10/100/1000 Base T
- Handheld-Wireless Systems
- USB Interface

#### Schematic & PIN Configuration



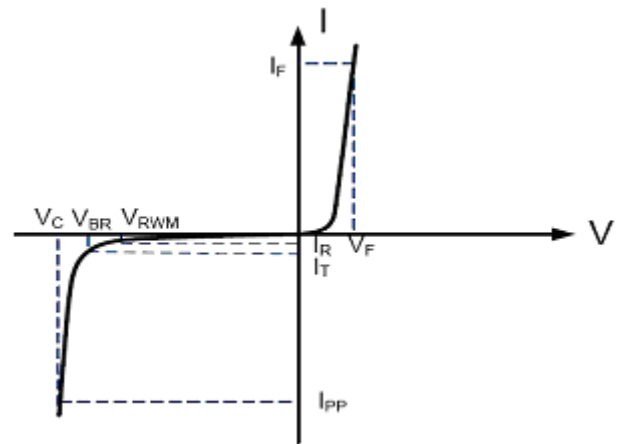
BIDIRECTIONAL

**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power( $t_P=8/20 \mu s$ )	PPP	500	Watts
Operating Temperature	$T_J$	-55to+125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55to+150	$^{\circ}C$

**Electrical Parameters (T=25 $^{\circ}C$ )**

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Peak Pulse Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$


**Electrical Characteristics**

Part No.	$V_{RWM}(V)$	$I_R(\mu A)$	$V_{BR}(V)$	C(PF)	$P_{PK}(W)$	Package
SLC12C	12.0	1.0	13.3-17.0	3	500	SOD323



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

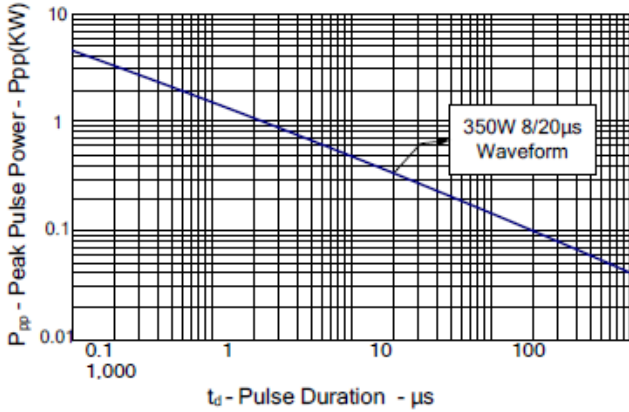


Figure 2: Power Derating Curve

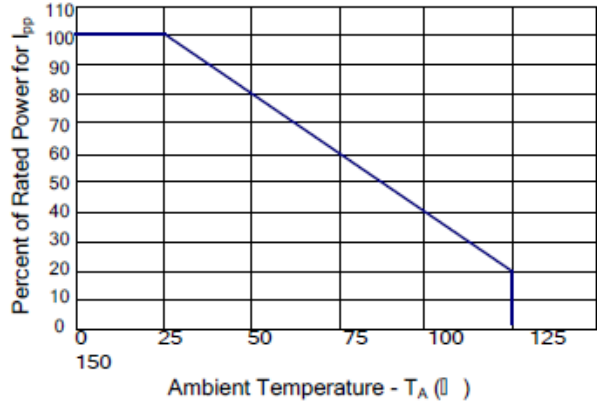


Figure 3: Clamping Voltage vs. Peak Pulse Current

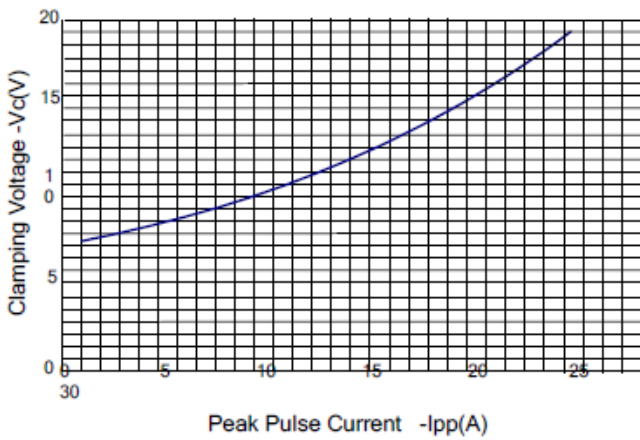


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

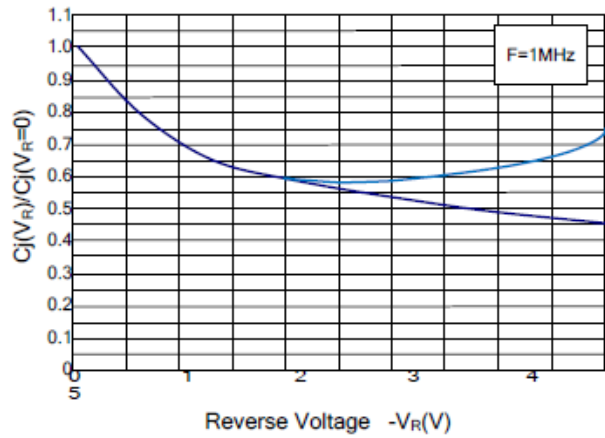


Figure 5: Pulse Waveform

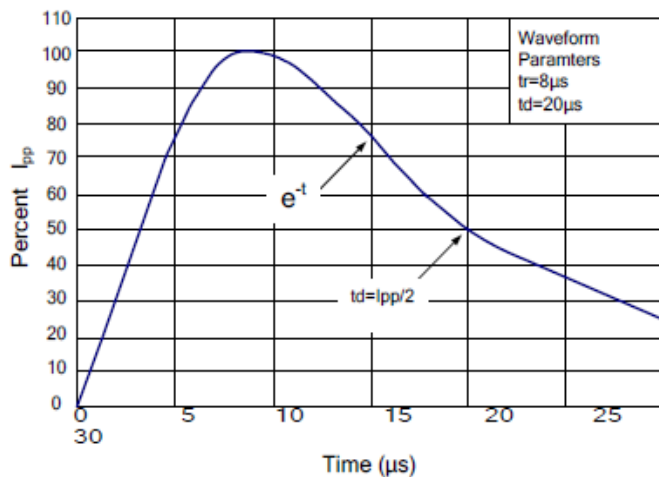
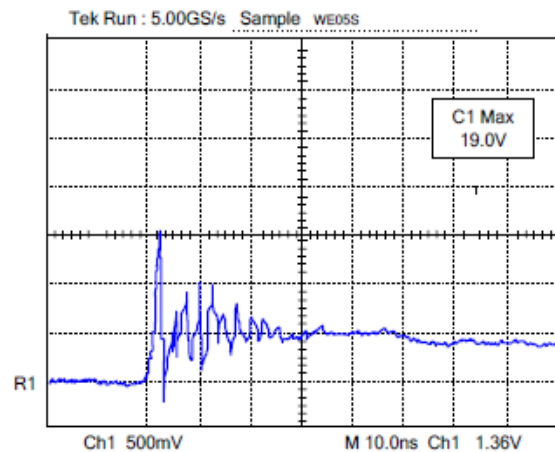
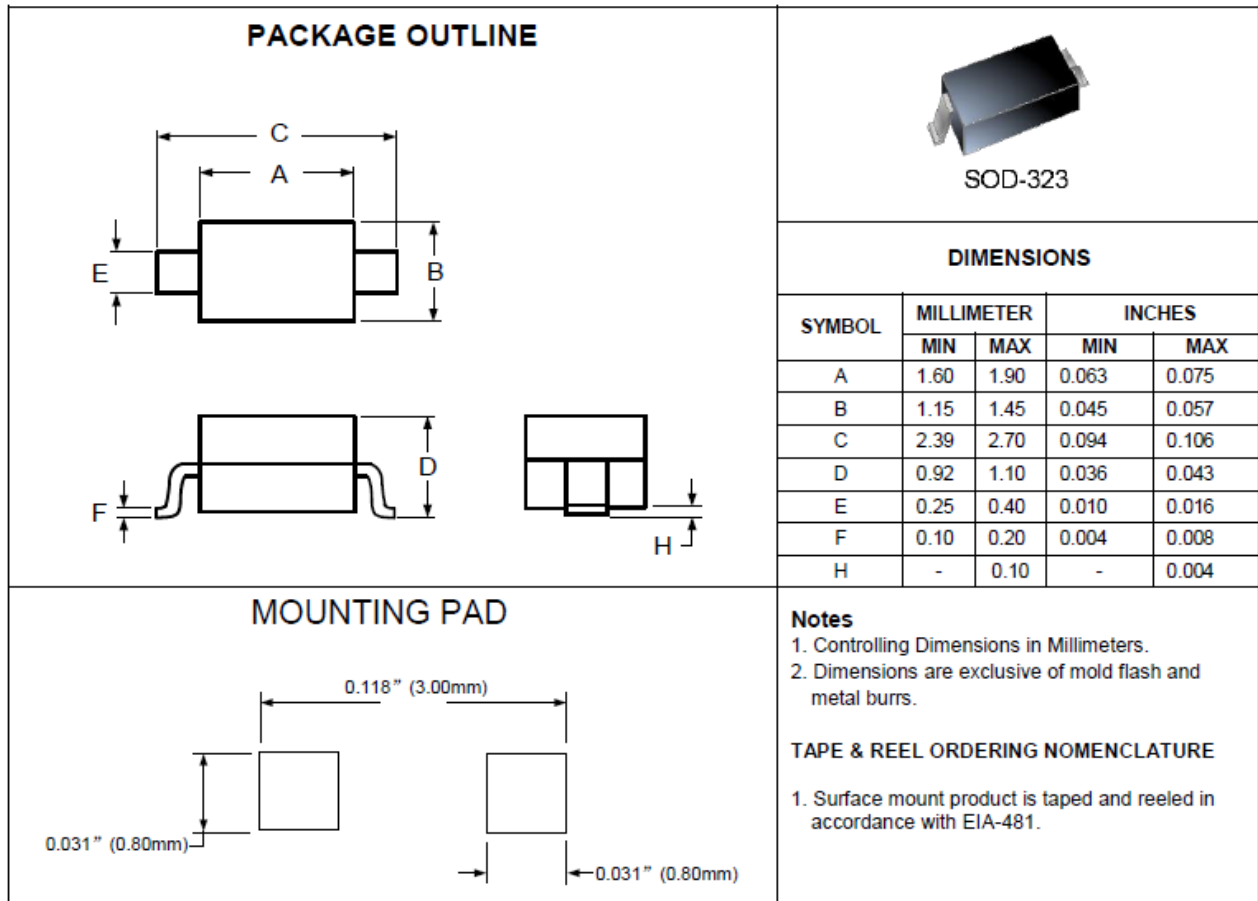


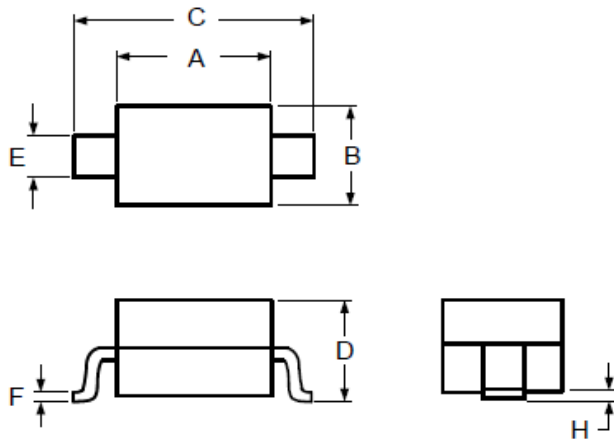
Figure 6: ESD Clamping( 8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD-323



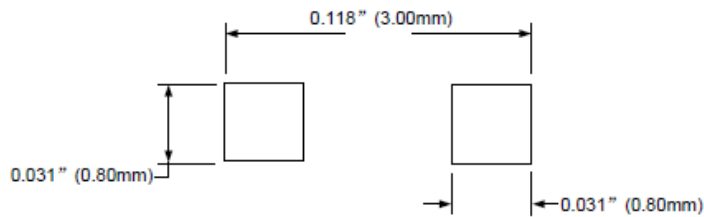
PACKAGE OUTLINE



SOD-323

DIMENSIONS

MOUNTING PAD



Notes

1. Controlling Dimensions in Millimeters.
2. Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL ORDERING NOMENCLATURE

1. Surface mount product is taped and reeled in accordance with EIA-481.

CONTACT INFORMATION

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