



Micro Commercial Components



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ESD5V0D3
Thru
ESD12VD3

5V~12Volts
ESD Protection
Devices

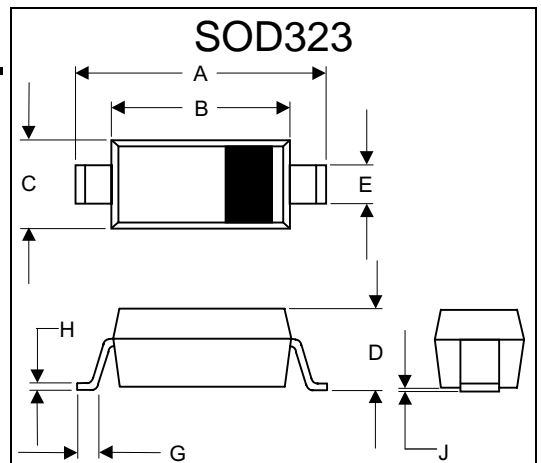
Features

- For sensitive ESD protection
Excellent clamping capability
Low leakage
ESD rating of class 3(>16KV)per Human Body Mode
For space saving application
Fast response ,response time less than 1ns.
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

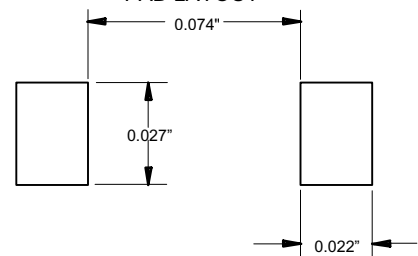
- Operating Junction &StorageTemperature: -55°C to +150°C
Maximum Thermal Resistance: 625°C/W Junction To Ambient

Table with 5 columns: Parameter, Symbol, Limits, unit. Rows include IEC61000-4-2(ESD) Air Contact, ESD Voltage per human body mode, and Power Dissipation.



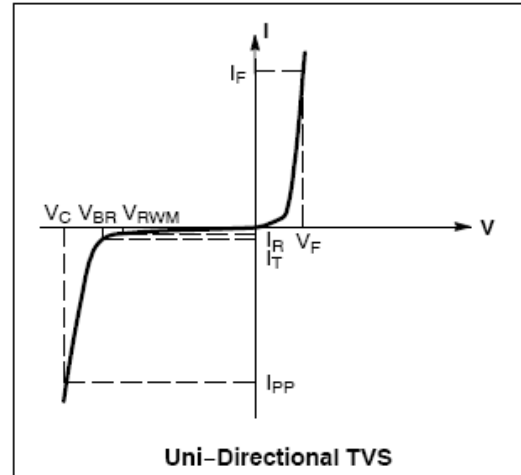
DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through J.

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

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 Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Max. Capacitance @ $V_R=0$ and $f=1\text{MHz}$



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{mA}$ for all types)

Device	Device Marking	V_{RWM}	$I_R (\mu\text{A})$	$V_{BR} (\text{V})$		I_T	V_C	$I_{PP}(\text{A})^+$	$V_C (\text{V})$	P_{pk}^+	C
		(V)	@ V_{RWM}	@ $I_T(\text{Note 2})$	Min		Max		@ $I_{PP} = 5\text{ A}$		
		Max	Max			mA	V	Max	Max	Max	Typ
ESD5V0D3	ZA	5.0	1.0	6.2	7.3	1.0	9.8	15	15.5	350	350
ESD12VD3	ZC	12	1.0	13.3	15.75	1.0	22	12	33	350	150

+Surge current waveform per Figure 6.

2. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

TYPICAL CHARACTERISTICS

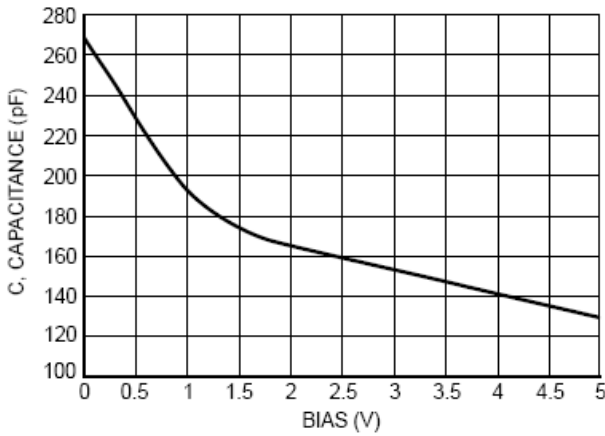


Figure 1. SD05 Typical Capacitance versus Bias Voltage

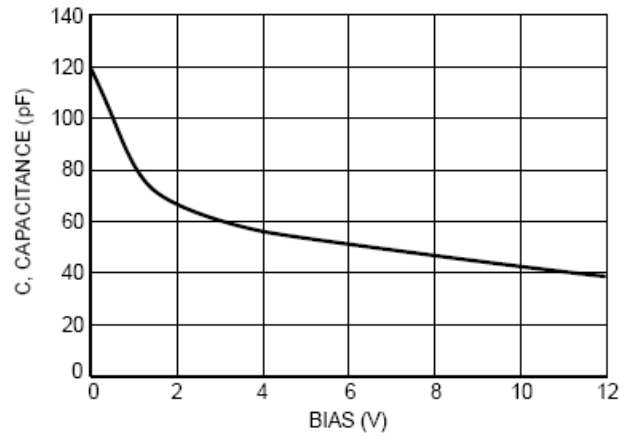


Figure 2. SD12 Typical Capacitance versus Bias Voltage

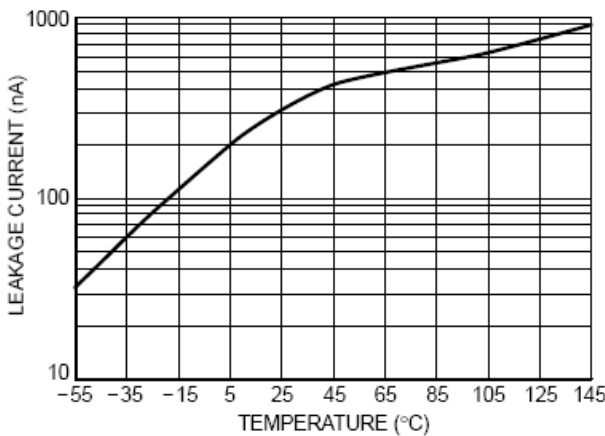


Figure 3. SD05 Typical Leakage Current versus Temperature

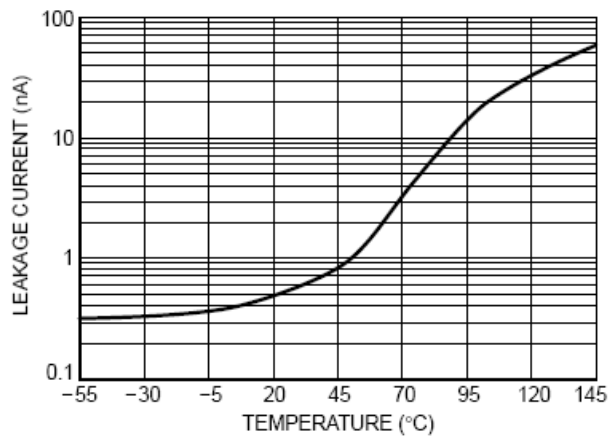


Figure 4. SD12 Typical Leakage Current versus Temperature

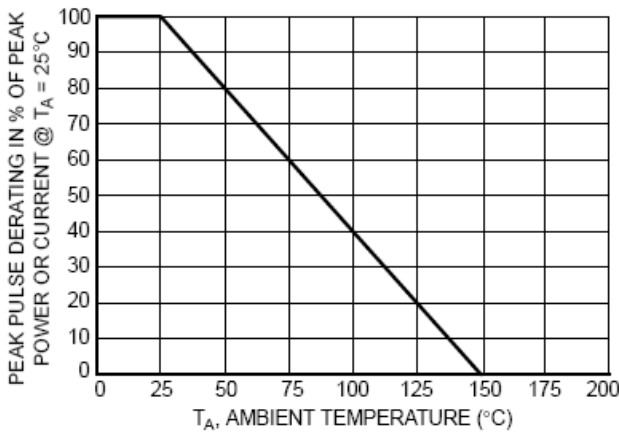


Figure 5. Pulse Derating Curve

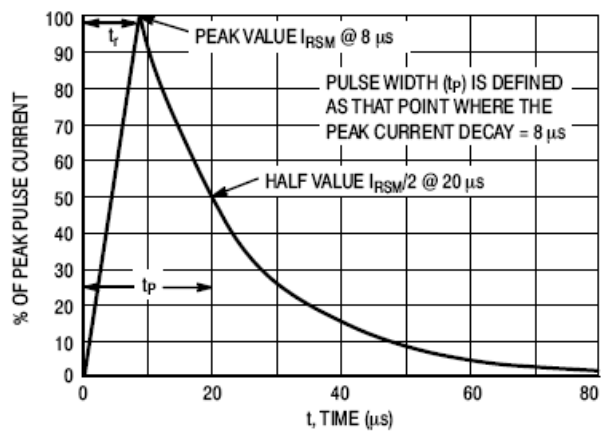


Figure 6. 8 x 20 μs Pulse Waveform



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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