

ME3V3U1BBC

1. Protection Solution To Meet

- IEC61000-4-2 (ESD) $\pm 20\text{kV}$ (air), $\pm 20\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 4A (8/20 μs)

2. Features

- Low clamping voltage
- Working voltage: 3.3V
- Low leakage current
- Ultra Low capacitance
- RoHS compliant

3. Main Application

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- USB, HDMI

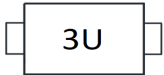
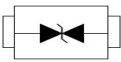
4. Mechanical Characteristics

- SOD-523 package
- Molding compound flammability rating: UL 94V-0
- Weight 0.5 milligrams (approximate)
- Lead finish: lead free

5. Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact)	$V_{\text{ESD-Contact}}$	± 20	KV
ESD per IEC 61000-4-2 (Air)	$V_{\text{ESD-Air}}$	± 20	KV
Peak Pulse Power(8/20us)	P_{pp}	56	W
Operating Temperature	T_{OPT}	$-55 \sim +150$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

6. Pinning information

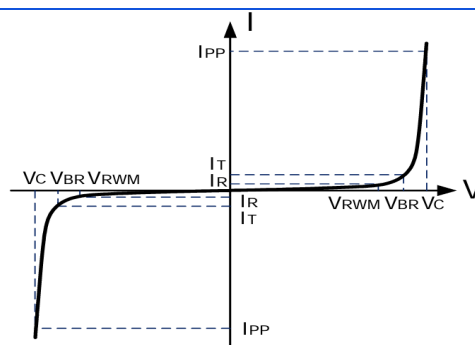
Pin	Description	Simplified outline	Equivalent Circuit	Marking	Package
2	Bi			3U	SOD-523

7. Electrical Characteristics (T_{amb}=25°C)

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				3.3	V
Breakdown Voltage	V _{BR}	I _T =1mA	4			V
Reverse Leakage Current	I _R	V _{RWM} =3.3V			0.1	uA
Clamping Voltage	V _C	I _{pp} =1A ,t _p =8/20us			10	V
Clamping Voltage	V _C	I _{pp} =4A ,t _p =8/20us			20	V
Junction Capacitance	C _J	V _R =0V ,f=1MHz		0.25	0.40	pF

8. Electrical Parameters

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}
I _T	Test Current
V _{BR}	Breakdown Voltage @I _T



9. Typical Characteristics

Fig.1 8/20 μ s Waveform Per IEC6100-4-5

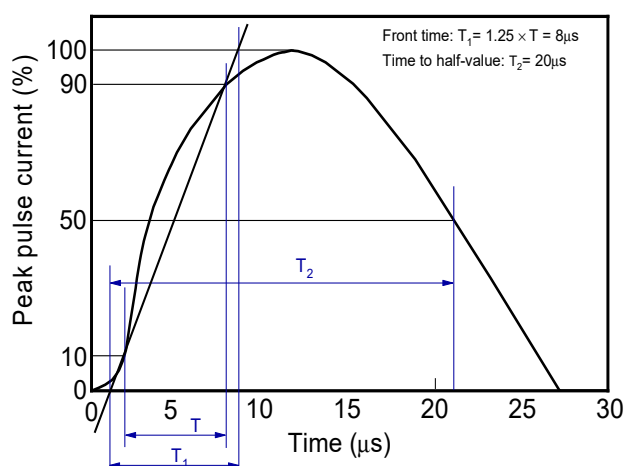


Fig.2 Contact Discharge Current Waveform per IEC61000-4-2

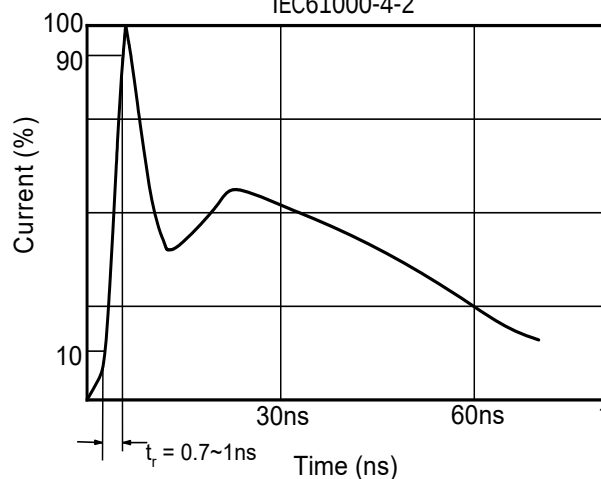
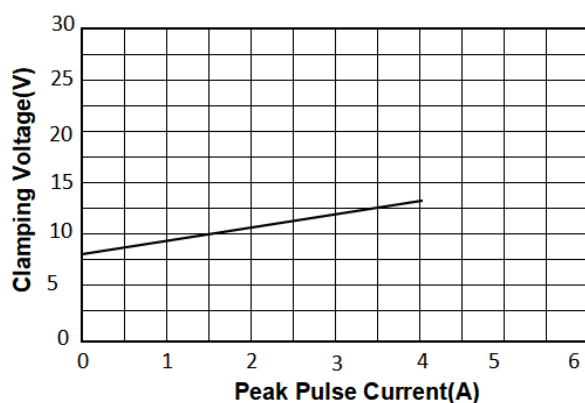
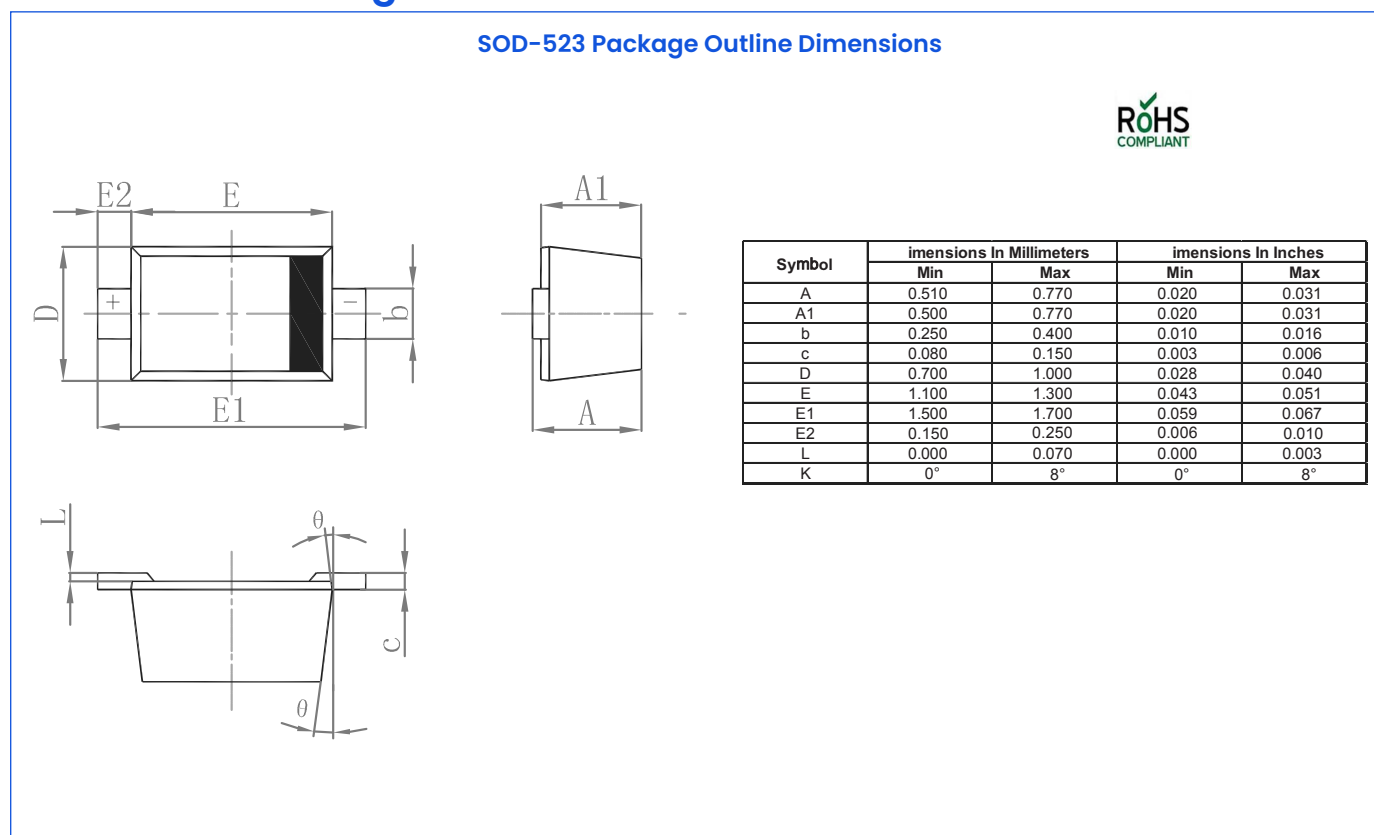


Fig.3 Clamping Voltage Vs Peak Pulse Current

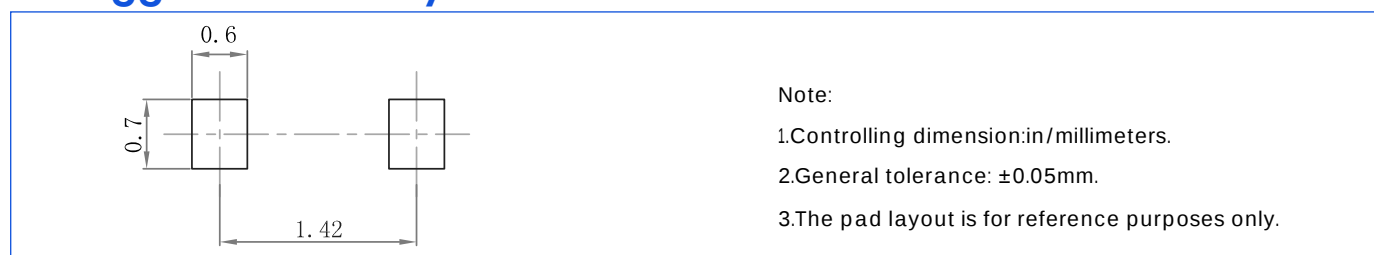


The curve above is for reference only.

10. Outline Drawing



11. Suggested Pad Layout



12. PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
SOD-523	7"	178	5000	190×190×190	75000	400×400×220	300,000

13.Important Notice and Disclaimer

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