

ME24VU2UCB

1. Protection Solution To Meet

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 2A (8/20 μs)

2. Features

- Protects two uni-directional I/O line
- Low capacitance 0.5pF TYP.
- Working voltage: 24V
- Low leakage current
- RoHS compliant

3. Main Application

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA' s)
- Portable instrumentation
- Peripherals
- Digital cameras

4. Mechanical Characteristics

- SOT-523 package
- Molding compound flammability rating: UL 94V-0
- Weight 3 milligrams (approximate)
- Lead finish: lead free
- Marking code: 24U

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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact)	$V_{\text{ESD-Contact}}$	± 8	KV
ESD per IEC 61000-4-2 (Air)	$V_{\text{ESD-Air}}$	± 15	KV
Peak Pulse Power(8/20us)	P_{pp}	96	W
Operating Temperature	T_{OPT}	-55~+150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ\text{C}$

6. Pinning information

Simplified outline	Equivalent Circuit	Marking	Package
		24U	SOT-523

7. Electrical Characteristics (Tamb=25°C)

Parameter	Symbols	Condition	Min	Typ	Max	
Reverse Working Voltage	VRWM				24	V
Breakdown Voltage	VBR	IT =1mA	26			V
Reverse Leakage Current	IR	VRWM=24V			0.5	uA
Clamping Voltage	VC	Ipp=1A , tp=8/20us			43	V
		Ipp=2A , tp=8/20us			48	V
Junction Capacitance	CJ	VR=0V ,f=1MHz		0.50	0.80	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 8/20us Waveform Per IEC6100-4-5

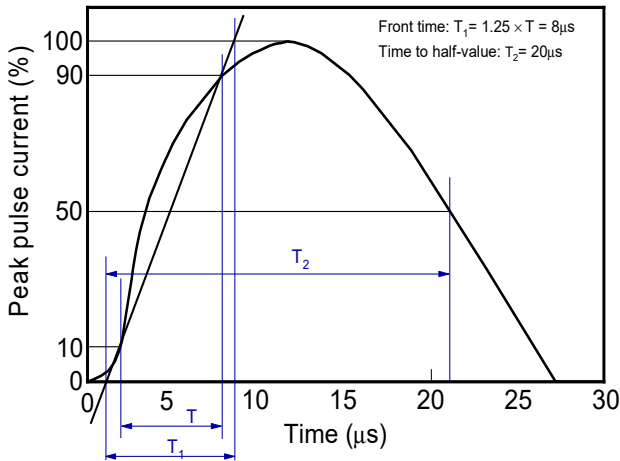


Fig.2 Contact Discharge Current Waveform per IEC61000-4-2

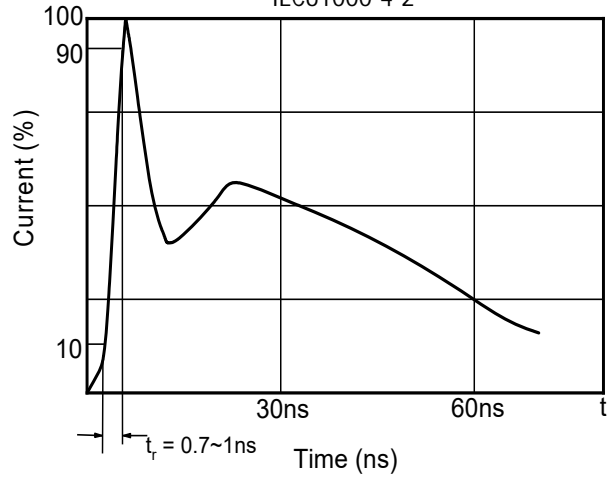


Fig.3 Clamping Voltage Vs. Peak Pulse Current

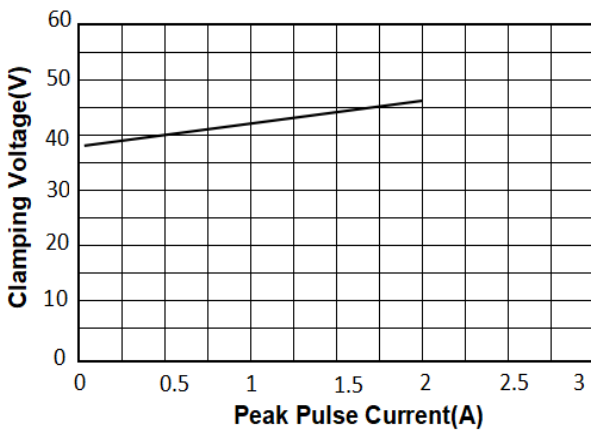
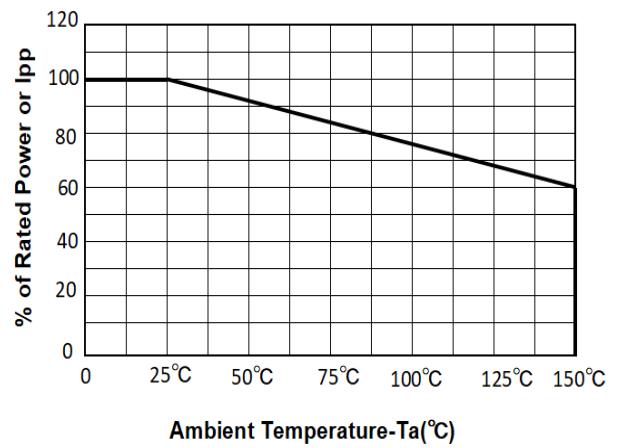
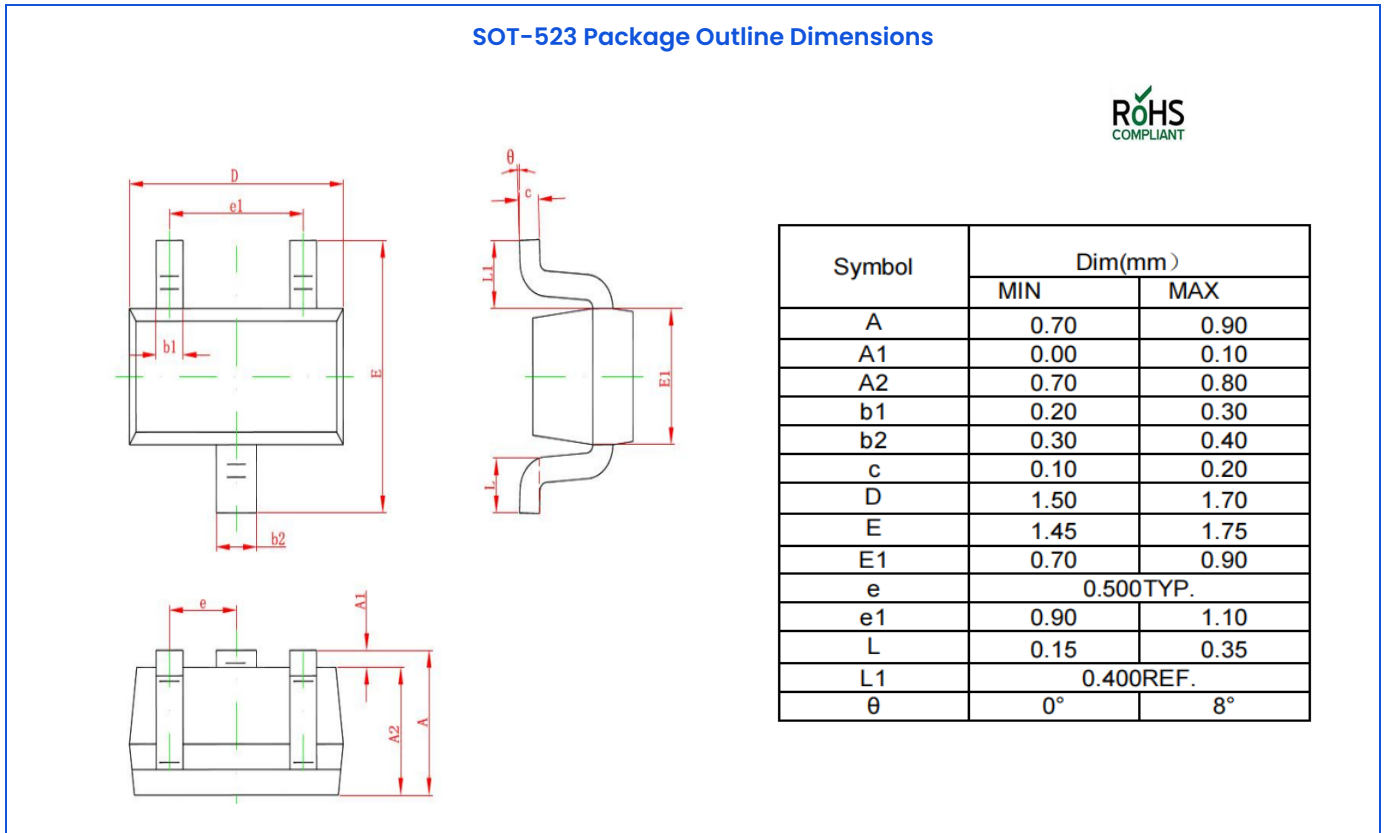


Fig.4 Power Derating

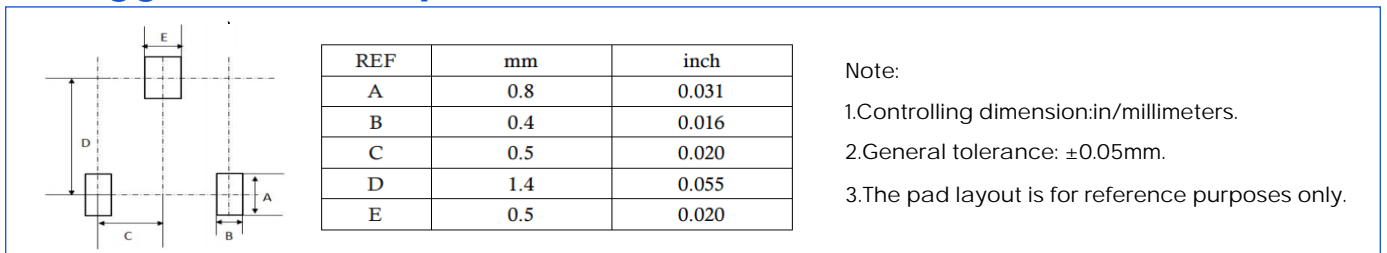


The curve above is for reference only.

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)
SOT-523	7'	178	3000	190×190×190	45,000	400×400×220	180,000

13.Important Notice and Disclaimer

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