



ESD5Z7.0C

SOD-523 SURFACE MOUNT

Very Small Outline Flat Lead Plastic Package Transient Voltage Suppressors ESD Protection Diodes

Specification Features:

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (Air), $\pm 30\text{kV}$ (Contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Peak power dissipation: 60W (8/20 μs)
- Protects one I/O line
- Low clamping voltage
- Working voltages : 3.3V
- Low leakage current

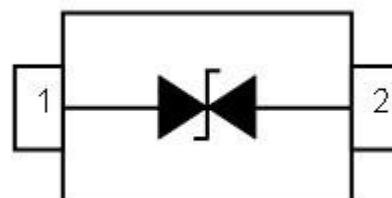
APPLICATIONS

Cell Phone Handsets and Accessories
Microprocessor based equipment Personal Digital
Assistants (PDA's) Notebooks, Desktops, and
Servers Portable Instrumentation
Networking and Telecom
Serial and Parallel Ports
Peripherals

SOD-523



Device Marking: 7C



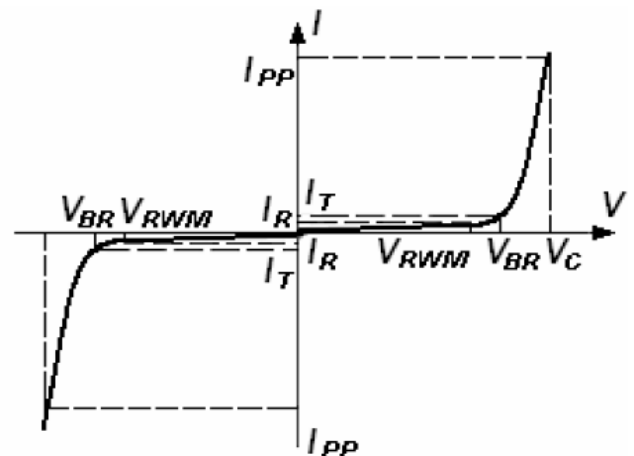
ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Contact)	± 30	kV
	ESD per IEC 61000-4-2 (Air)	± 30	
P_{PP}	Peak Pulse Power (8/20 μs)	180	W
T_{OPT}	Operating Temperature	-40~150	C
T_{STG}	Storage Temperature	-40~150	C

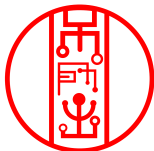


ELECTRICAL CHARACTERISTICS (T _{amb} =25 C)						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage				7.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	7.5			V
I _R	Reverse Leakage Current	V _{RWM} = 7.0V			1.0	μA
V _C	Clamping Voltage	I _{PP} = 1A, t _p = 8/20μs			12	V
V _C	Clamping Voltage	I _{PPmax} = 8A, t _p = 8/20μs			24.0	V
C _J	Junction Capacitance	V _R = 0V, f = 1MHz			48	pF

Electrical Parameter

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





ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20 μ s Waveform per IEC61000-4-5

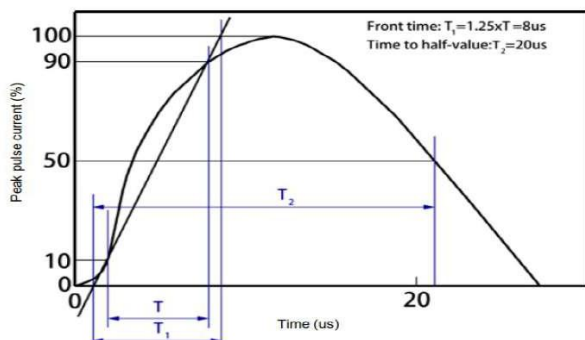


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

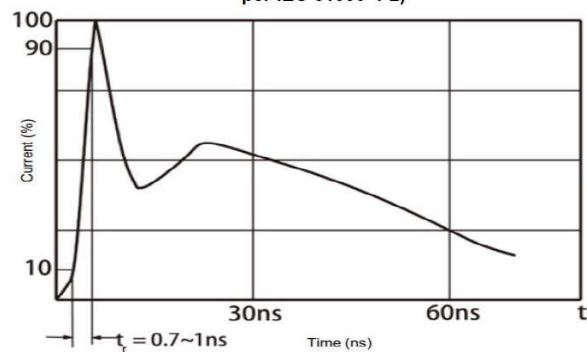


Fig 3 Power Derating Curve

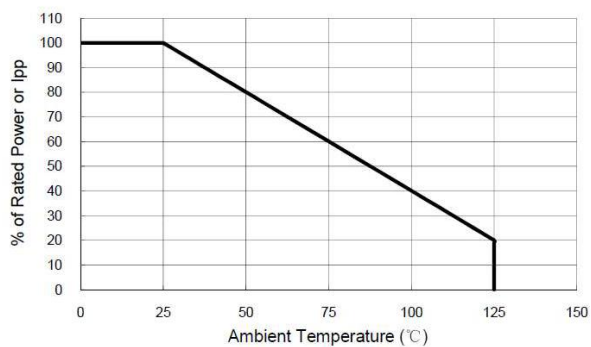


Fig 4 Voltage vs Capacitance

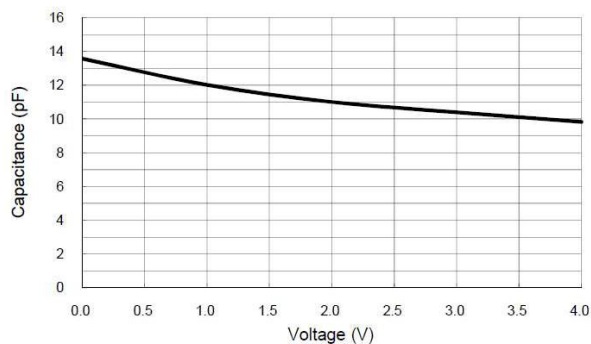


Fig 5 Transmission Line Pulsing (TLP) Measurement

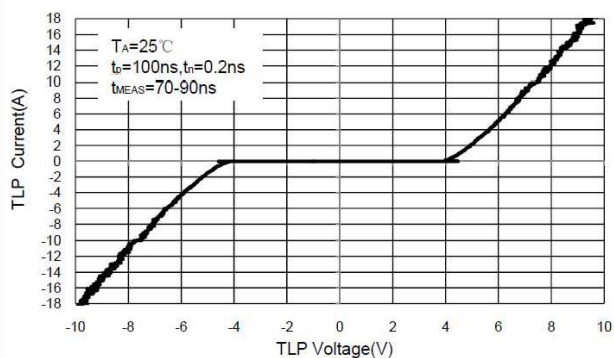
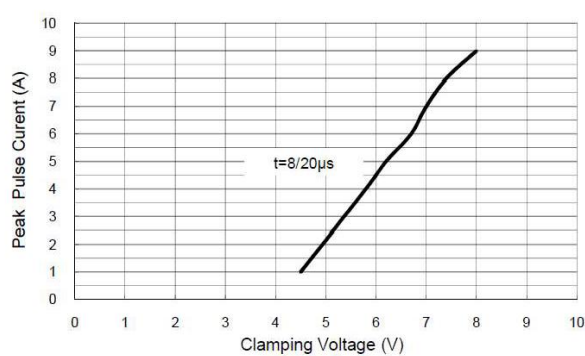
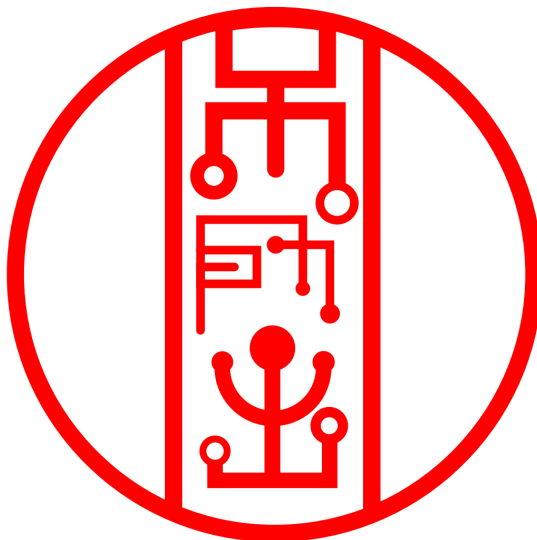


Fig 6 Clamping Voltage vs Peak Pulse Current



SOD-523 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.