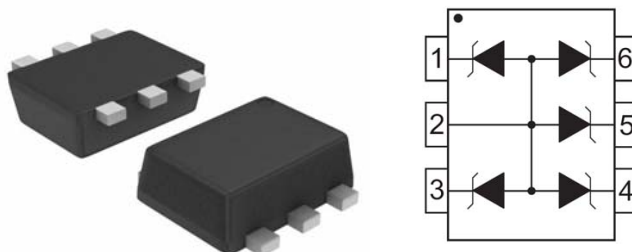


ESD TVS Array in SOT563

Features

- 80Watts peak pulse power ($t_p = 8/20\mu s$)
- SOT563 Package
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Normal capacitance (30pF typical I/O to GND)
- Protection to:
 - IEC 61000-4-2 $\pm 8kV$ contact $\pm 15kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 10A (8/20 μs)



Mechanical Data

- **Case:** SOT563 (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- Computers and peripherals
- Communication systems
- Notebook
- Cellular handsets and accessories
- Portable electronics
- Audio and video equipment

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_p=8/20\mu s$)	P_{PP}	80	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	8/15	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	10	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

($T_A = 25\text{ °C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6			V
Reverse Leakage Current	I_R	$V_R=5V$		0.01	1	μA
Clamping Voltage(SURGE)	V_C	$I_{PP}=10A, T_p=8/20\mu s$			10	V
Trigger Voltage(ESD)	V_T	$V_{ESD} = +8kV$		100		V
Clamping Voltage(ESD)	V_C	$V_{ESD} = +8kV$		20		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz^{(1)}$		30		pF

Note1: Pin 1, 3, 4, 5, 6 to Pin 2

Typical Characteristics ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

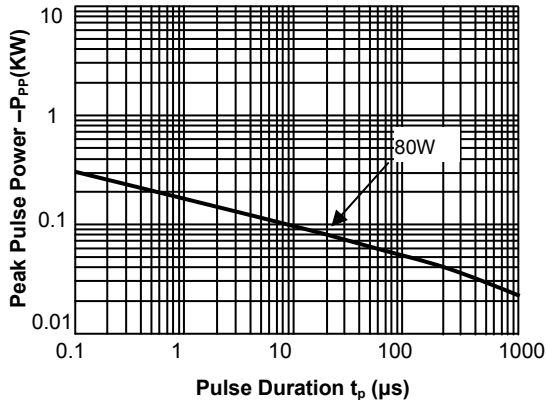


Fig.2 Pulse Derating Curve

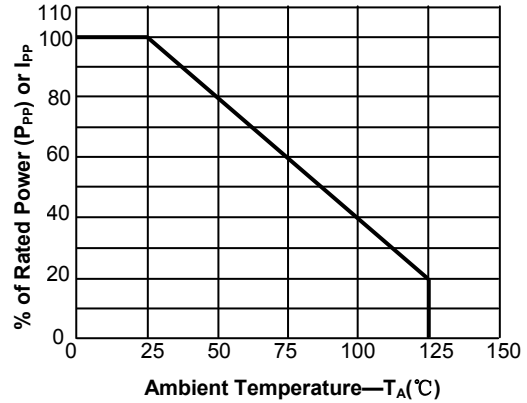


Fig.3 Pulse Waveform-8/20μs

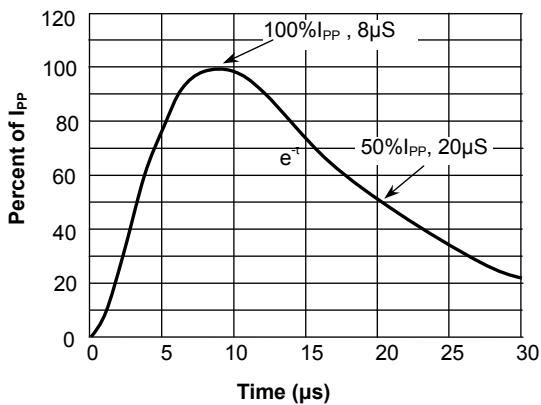
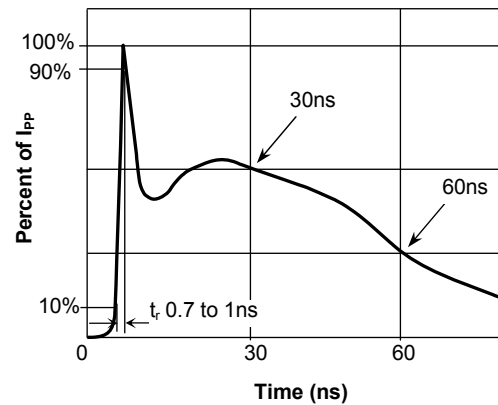
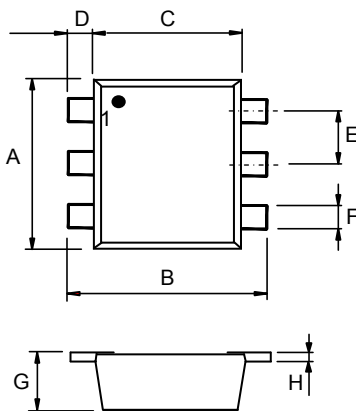


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

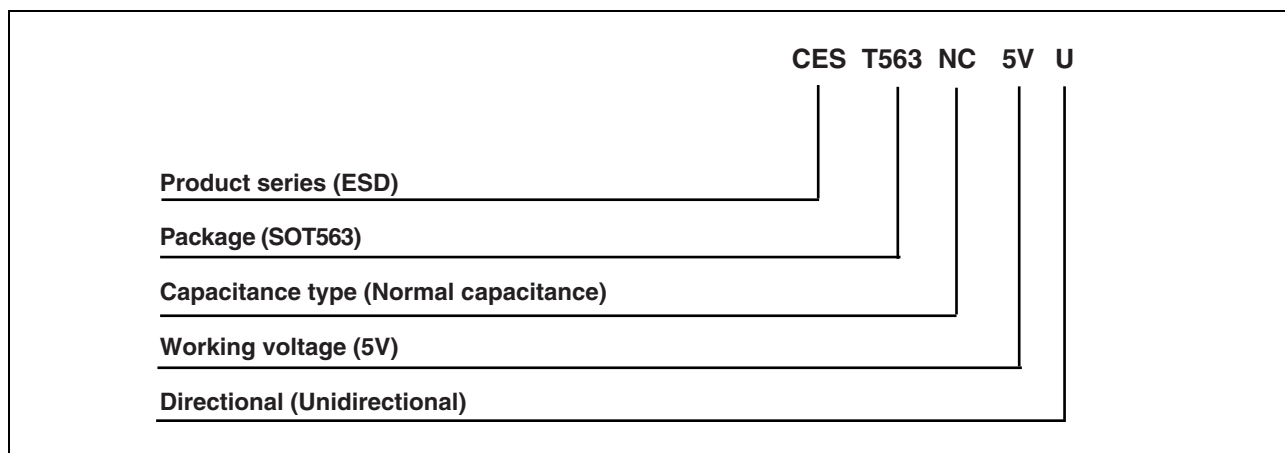


Package Dimensions



Dim	millimeters	
	min	max
A	1.50	1.70
B	1.50	1.70
C	1.10	1.30
D	0.10	0.30
E	0.50BSC	
F	0.17	0.27
G	0.50	0.60
H	0.08	0.16

Part number system



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CEST563NC5VU	SOT563	Tape and reel	3000pcs / reel	EIA STD RS-481

Reision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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