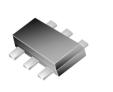


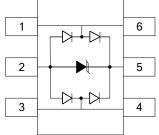
## **CREATEK Microelectronics**

## Low Capacitance ESD TVS Array in SOT563

#### **Features**

- 100Watts peak pulse power (tp = 8/20µs)
- SOT563 Package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (Cj=0.8pF typ.)
- ESD Protection for high-speed data lines to: IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC 61000-4-4 (EFT) 40A (5/50ns) IEC 61000-4-5 (Lightning) 4A (8/20µs)





## **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**

- FireWire & USB
- Sensitive Analog Inputs
- Portable Electronics
- LAN/WAN equipment
- Video Line Protection
- Microcontroller Input Protection

## **Absolute Maximum Ratings**

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power (T <sub>P</sub> =8/20µS)	P <sub>PP</sub>	100	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	8/15	kV
Peak Pulse Current ( t₂ = 8/20µS )	I <sub>PP</sub>	4	Α
Junction Temperature	TJ	-55 to +125	$^{\circ}$
Storage temperature	T <sub>STG</sub>	-55 to +150	${\mathbb C}$

#### **Electrical Characteristics**

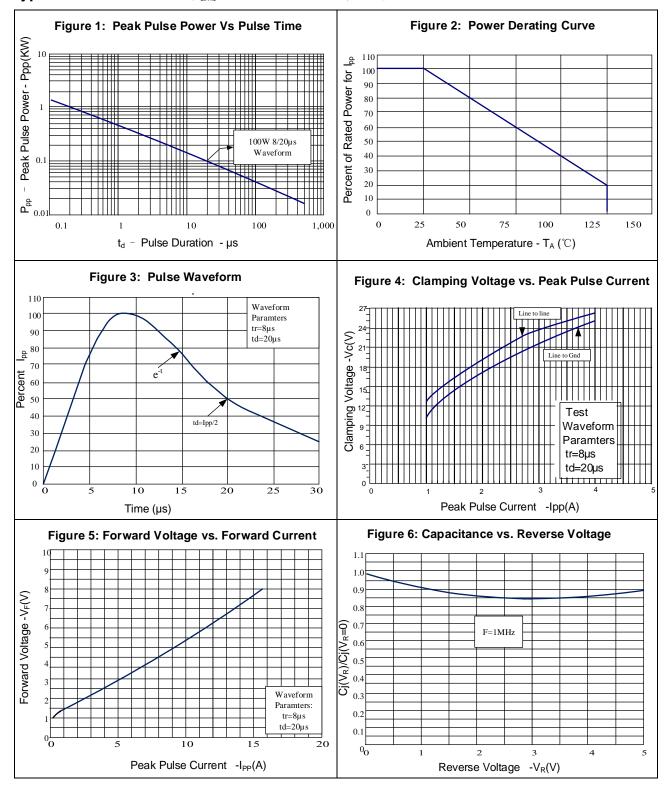
(T<sub>A</sub> = 25 °C unless otherwise specified)

Parameter	Symbol	Condition	Min	Тур	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	I <sub>T</sub> =1mA	6			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V,T=25°C			1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>p</sub> =8/20μs	10			V
Clamping Voltage	Vc	I <sub>PP</sub> =4A, t <sub>p</sub> =8/20µs			25	V
Junction Capacitance	Ci	Between I/O pins and Ground V <sub>R</sub> =0V, f=1MHz		0.8	1.0	pF
	O <sub>j</sub>	Between I/O pins V <sub>R</sub> =0V, f=1MHZ		0.4	0.6	pF



## **CREATEK Microelectronics**

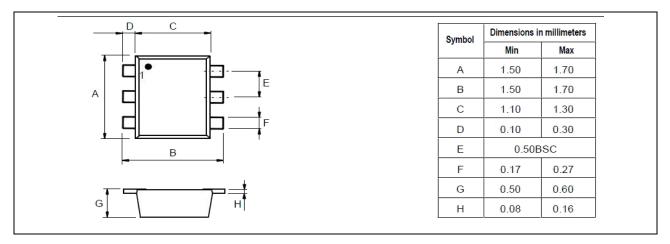
# Typical Characteristics ( $T_{amb} = 25 \, ^{\circ}\text{C}$ unless otherwise specified)



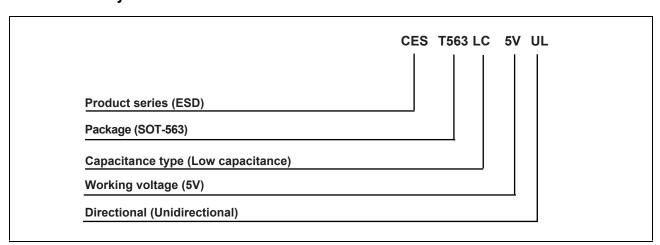


## **CREATEK Microelectronics**

## **Package Dimensions**



## Part number system



## **Ordering inormation**

Order code	Package	Marking	Packaging option	Base quantity	Packaging specification
CEST563LC5VUL	SOT-563	5R5	Tape and reel	3000pcs / reel	EIA STD RS-481

## **Reision history**

Date	Revision	Changes
23-May-2012	1.0	Initial release



# CEST563LC5VUL

#### **CREATEK Microelectronics**

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