# <sup>¤</sup>@REATEK

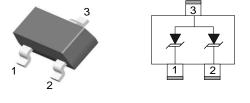
## CEST23NC5VU

## **CREATEK Microelectronics**

## **ESD TVS Array in SOT-23**

### Features

- 320Watts peak pulse power (tp = 8/20µs)
- Tiny SOT-23 package
- Unidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- ESD-immunity acc. IEC 61000-4-2 ±30KV contact ±30KV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 20A (8/20µs)



### Mechanical Data

- Case: SOT-23 (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

- Cellular Handsets and Accessories
- RS-232, RS-422 & RS-485
- Control & Monitoring Systems
- Set-Top Box
- Portable Electronics
- Other electronics equipments Communication systems

### **Absolute Maximum Ratings**

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
ESD Air Discharge per IEC 61000-4-2	V <sub>ESD</sub>	± 30	kV
ESD Contact Discharge per IEC 61000-4-2	V <sub>ESD</sub>	± 30	kV
Peak pulse power 8/20 µs waveform	P <sub>PPM</sub>	350	W
Peak pulse current 8/20 µs waveform	I <sub>PPM</sub>	20	A
Operating Temperature	TJ	- 55 to + 125	°C
Storage Temperature	T <sub>STG</sub>	- 55 to + 150	°C

## **Electrical Characteristics**

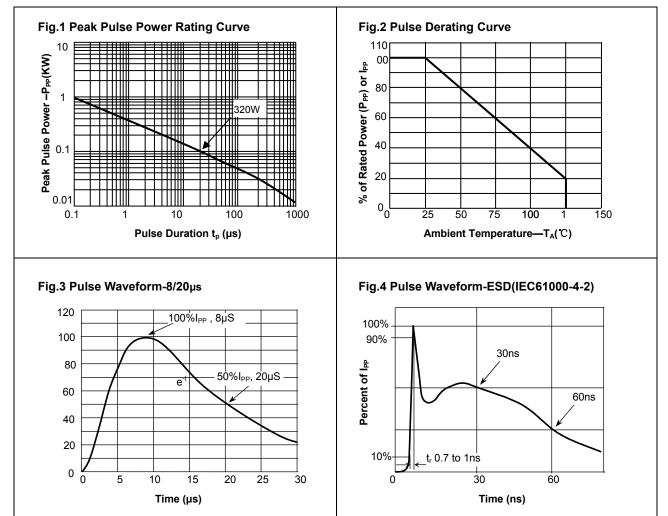
(T<sub>A</sub> = 25 °C unless otherwise specified)

Parameter	Test Conditions	Synbol	Min.	Тур.	Max.	Unit
Reverse Stand-Off Voltage		V <sub>RWM</sub>			5	V
Reverse current	at V <sub>R</sub> =5 V	IR			1	μA
Clamping voltage	at I <sub>PP</sub> = 10A, Acc. IEC 61000-4-5	V <sub>C</sub>			12	V
Clamping voltage	at I <sub>PP</sub> = 20A, Acc. IEC 61000-4-5	V <sub>C</sub>			16	V
Reverse Breakdown Voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	6			V
Capacitance	at V <sub>R</sub> = 0 V ; f = 1 MHz	CD		60		pF

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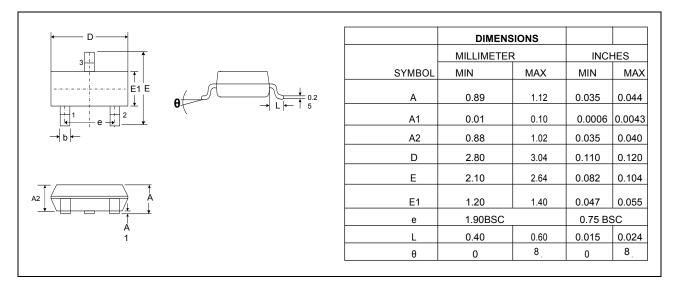
## CEST23NC5VU

## **CREATEK Microelectronics**



## Typical Characteristics (T<sub>amb</sub> = 25 °C unless otherwise specified)

### **Package Dimensions**





**CREATEK Microelectronics** 

## Part number system

Product series (ESD)	
Product series (ESD)	
Package (SOT-23)	
Capacitance type (Normal Capacitance)	
Working voltage (5V)	
Directional (Unidirectional)	

## Marking



## **Ordering inormation**

Order code	Package	Packaging option	Base quantity	Packaging specification
CEST23NC5VU	SOT-23	Tape and reel	3000pcs / reel	EIA STD RS-481

## **Revision history**

Date	Revision	Changes
23-May-2012	1.0	Initial release

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## CEST23NC5VU

#### **CREATEK Microelectronics**

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