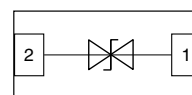
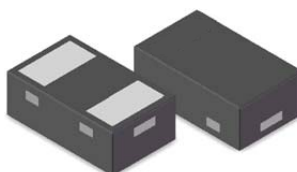


## Ultra low Capacitance ESD Protection Diode in SOD-882

### Features

- 100Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-882 Package
- Bidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ( $C_j = 0.3pF$  typ.)
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 15kV$  contact  $\pm 15kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 5A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** SOD-882 (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

- USB3.0, Firewire, DVI, HDMI, S-ATA
- Thunderbolt, Display Port
- Mobile HDMI Link, MDDI, MIPI, SWP / NFC

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P = 8/20\mu s$ )	$P_{PP}$	100	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	15	kV
Peak Pulse Current ( $t_P = 8/20\mu s$ )	$I_{PP}$	5.0	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

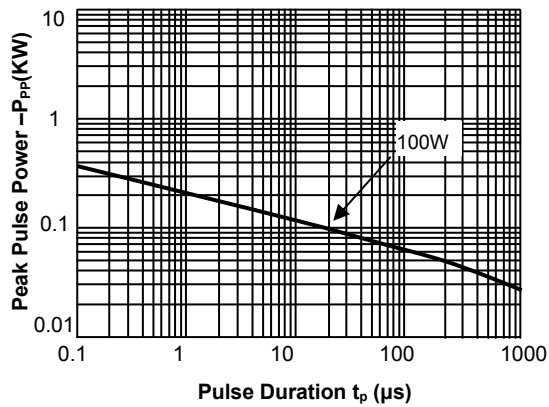
### Electrical Characteristics

( $T_A = 25$  °C unless otherwise specified)

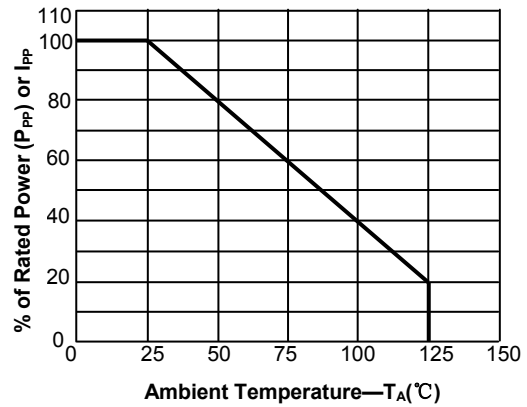
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	6.5	8.5		V
Reverse Leakage Current	$I_R$	$V_R = 5.0V$		5	100	nA
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP} = 1A$			10.6	V
		$I_{PP} = 5A$			20.5	V
Trigger Voltage (IEC 61000-4-2)	$V_T$	$V_{ESD} = 8kV$		135		V
Clamping Voltage (IEC 61000-4-2)	$V_C$	$V_{ESD} = 8kV$		20		V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		0.3	0.35	pF

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

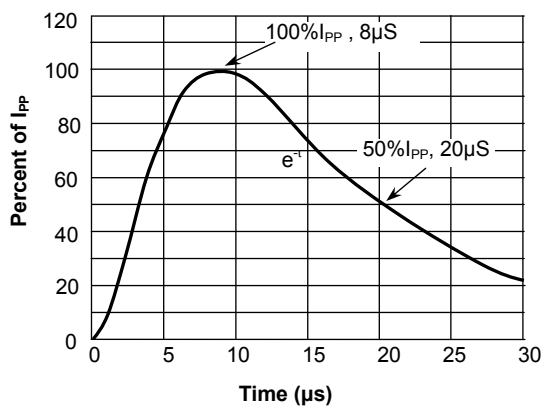
**Fig.1 Peak Pulse Power Rating Curve**



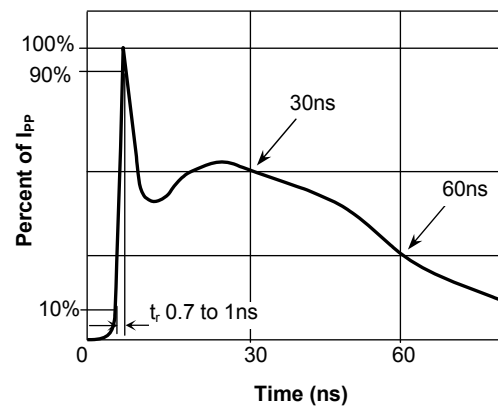
**Fig.2 Pulse Derating Curve**



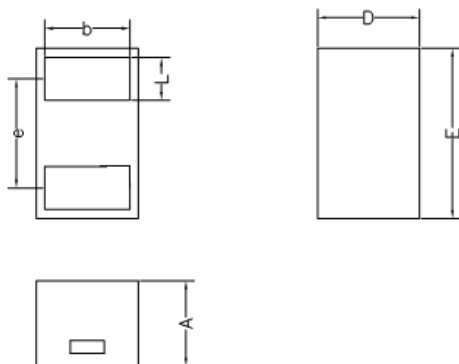
**Fig.3 Pulse Waveform-8/20μs**



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

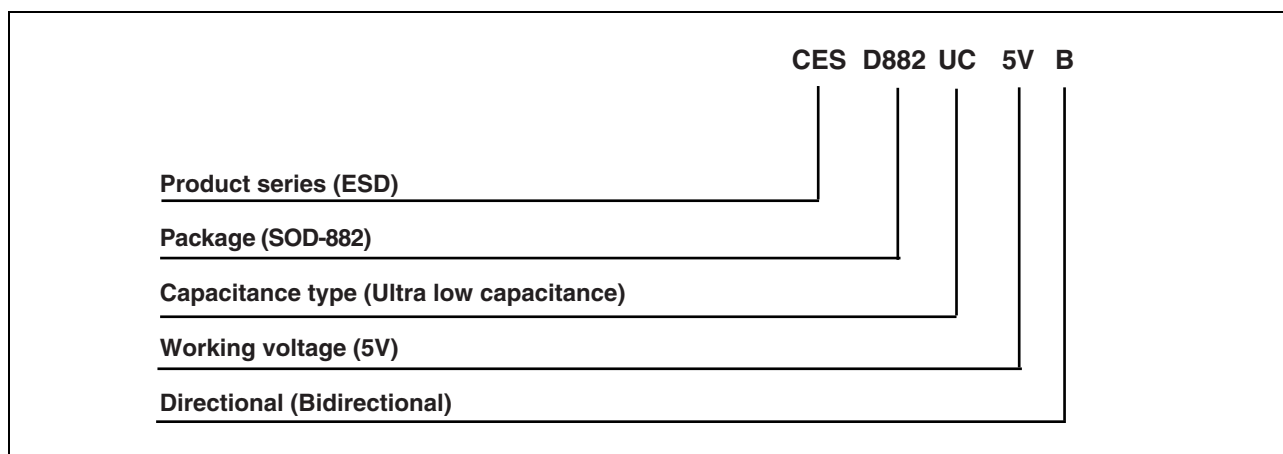


## Package Dimensions



Symbol	Dimensions in millimeters		
	Min	Nom	Max
D	0.55	0.60	0.65
E	0.95	1.00	1.05
b	0.45	0.50	0.55
L	0.20	0.25	0.30
e	0.64 BSC		
A	0.45	0.50	0.55

## Part number system



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CESD882UC5VB	SOD-882	Tape and reel	10,000pcs / reel	EIA STD RS-481

## Reision history

Date	Revision	Changes
23-May-2012	1.0	Initial release
28-July-2016	1.1	Update qty per reel

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