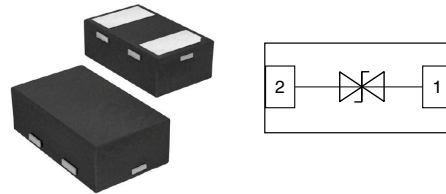


Ultra low Capacitance ESD Protection Diode in SOD-882

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 $\pm 20kV$ contact $\pm 20kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)



Mechanical Data

- **Case:** SOD-882 (plastic package).
Lead free; RoHS compliant; Halogen free
- **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

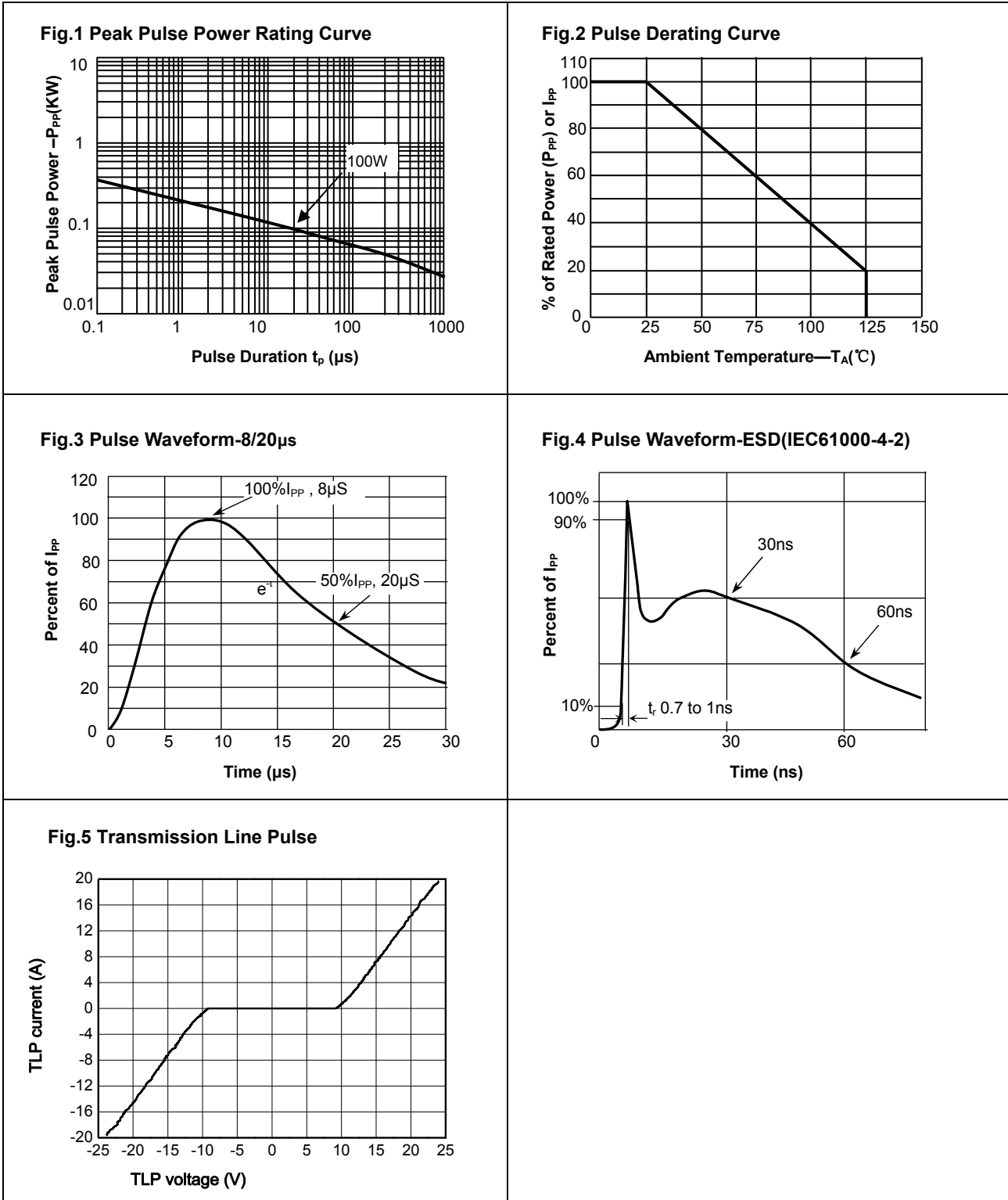
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu S$)	P_{PP}	100	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	20	kV
Peak Pulse Current ($t_p = 8/20\mu S$)	I_{PP}	5.0	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

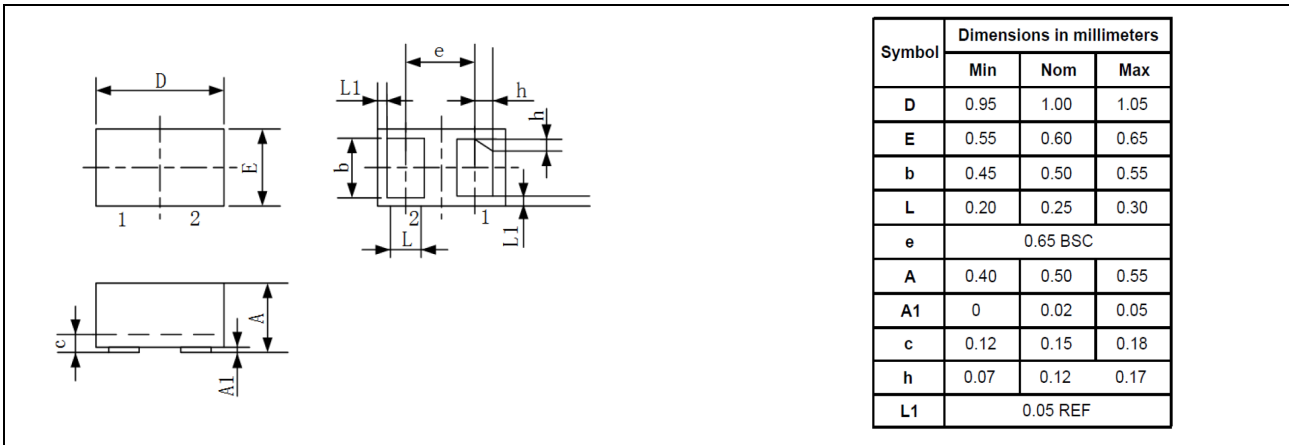
($T_A = 25 \text{ °C}$ unless otherwise specified)

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	$V_R=5.0V$			100	nA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=1A$			15	V
		$I_{PP}=5A$		27		V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$		20		V
Clamping Voltage (TLP)	V_C	$I_{PP}=16A, T_p=100ns$		21		V
Dynamic resistance	R_{dyn}			0.7		Ω
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		0.3	0.35	pF

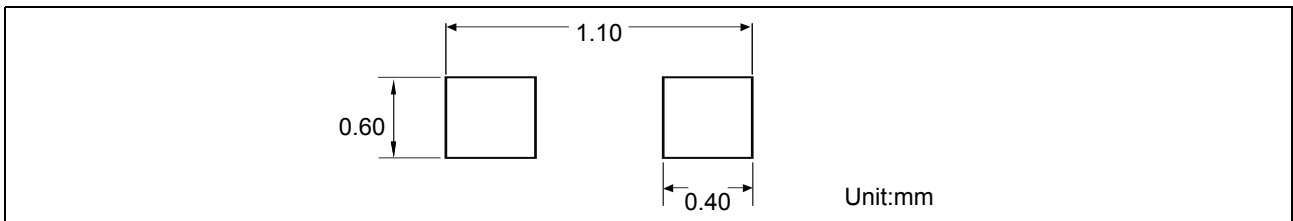
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



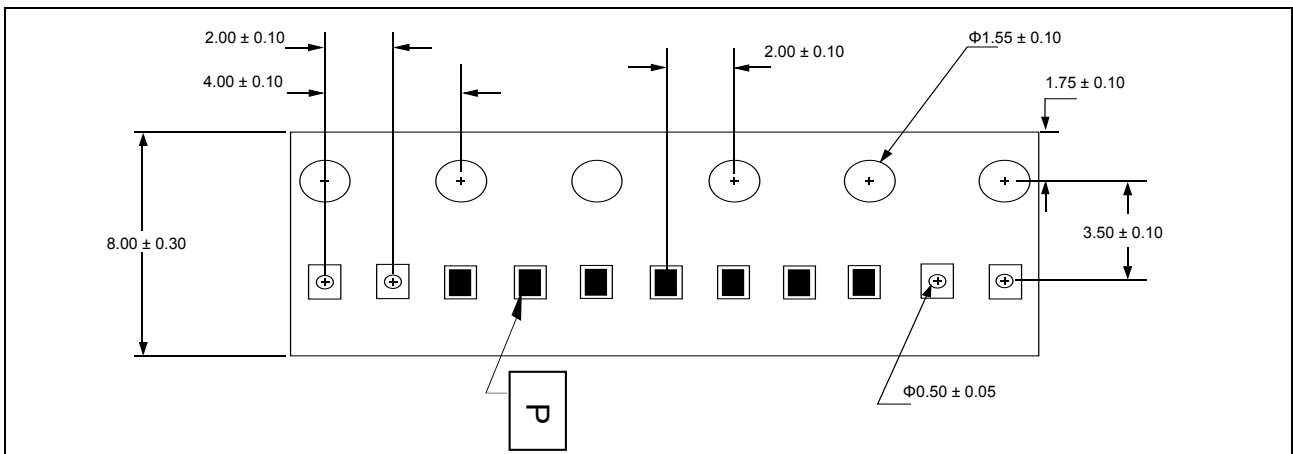
Package Dimensions



Pad Dimensions



Tape and Reel Specification



Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
TESD882UC5VB	P	SOD-882	Tape and reel	10,000pcs / reel	EIA STD RS-481