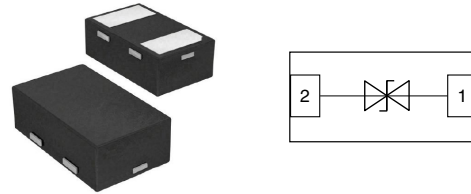


## Low Capacitance ESD Protection Diode in SOD-882

### Features

- 40Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-882 package
- Bidirectional configurations
- SCR technology
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j = 3pF$  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) 3A (8/20 $\mu s$ )



### 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

- Audio Line, Speaker, Headset, Microphone Protection
- Human Interface Devices (Keyboard, Touchpad, Buttons)
- USB2.0 Protection

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

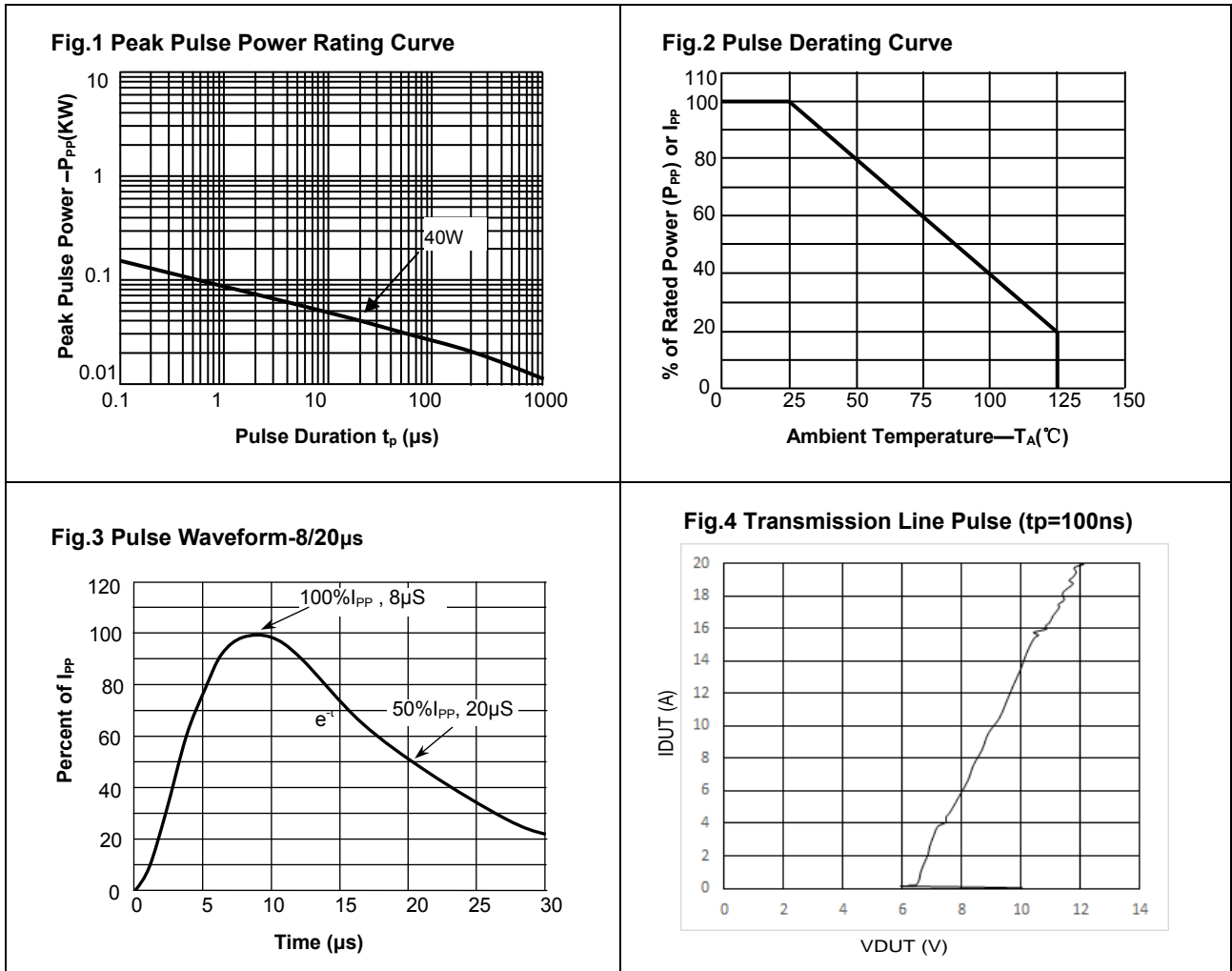
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu S$ )	$P_{PP}$	40	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	20/20	kV
Peak Pulse Current ( $t_P = 8/20\mu S$ )	$I_{PP}$	3.0	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics

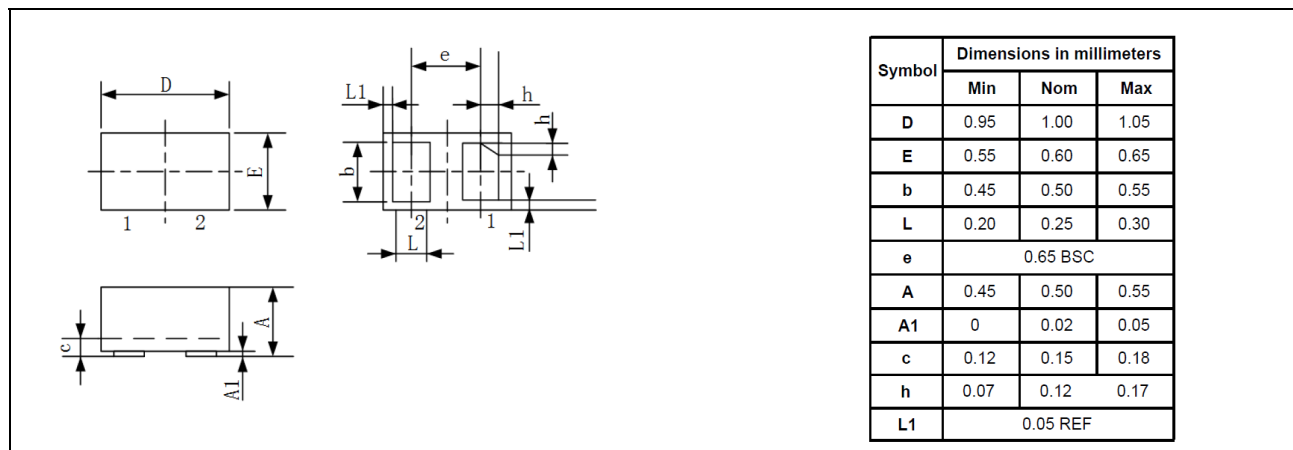
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	5.5		9.5	V
Reverse Leakage Current	$I_R$	$V_R=5V$		0.01	1	$\mu A$
Clamping Voltage(SURGE)	$V_C$	$I_{PP}=3A, T_P=8/20\mu S$			13.5	V
Clamping Voltage(ESD)	$V_C$	$V_{ESD} = +6kV$		10.5		V
Clamping Voltage(TLP)	$V_C$	$I_{PP}=8A, T_P=100ns$		9		V
Clamping Voltage(TLP)	$V_C$	$I_{PP}=16A, T_P=100ns$		11		V
Dynamic Resistance	$R_{dyn}$			0.275		$\Omega$
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		3.0		pF

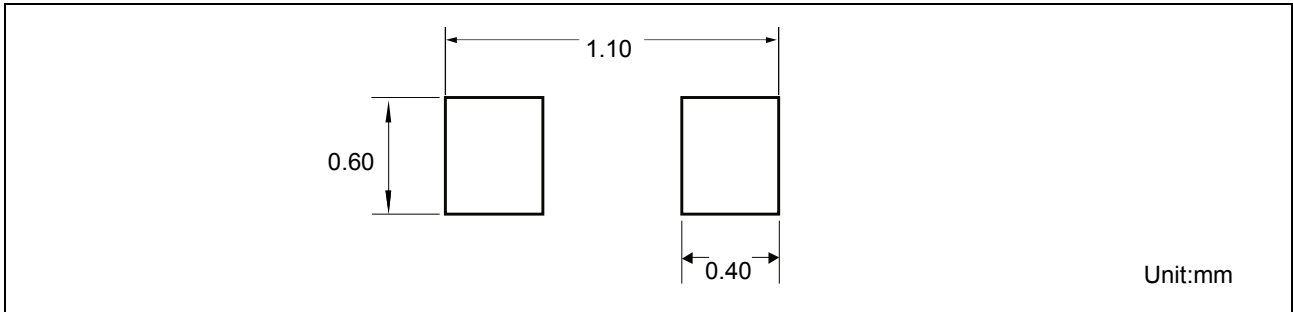
## Typical Characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



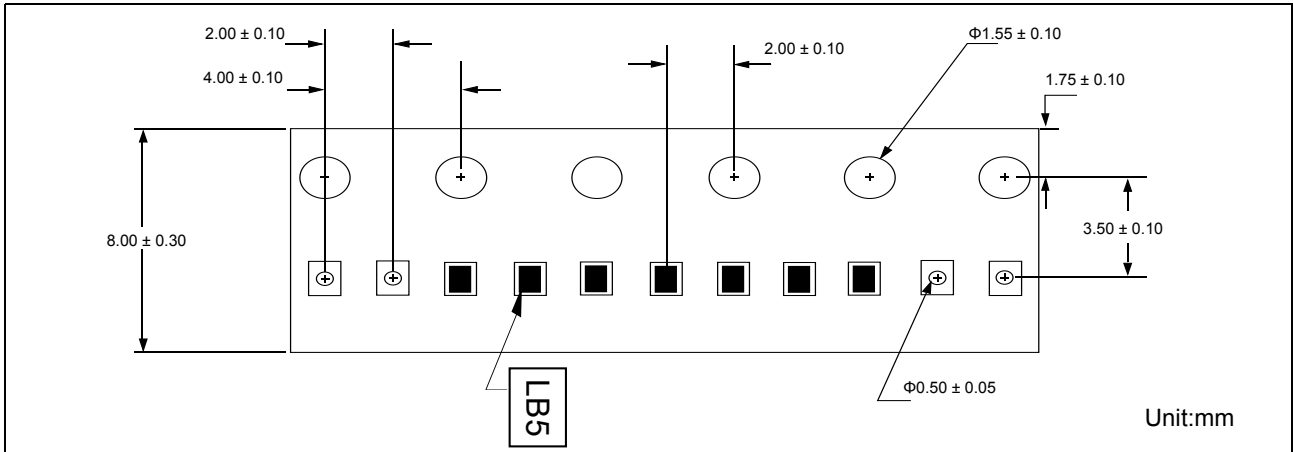
## Package Dimensions



## Pad Dimensions



## Tape and Reel Specification



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
TESD882LC5VB	SOD-882	Tape and reel	10,000pcs / reel	EIA STD RS-481