



## Ultra Low Capacitance Bidirectional TVS for ESD Protection Diode



### FEATURES

- ◇ Transient protection for high-speed data lines  
IEC 61000-4-2 (ESD) ±15kV (Contact)  
±20kV (Air)  
Cable Discharge Event (CDE)
- ◇ Package optimized for high-speed lines
- ◇ Ultra-small package (1.0mm×0.6mm×0.5mm)
- ◇ Protects one data, control line
- ◇ Low capacitance: 0.25pF (Typical)
- ◇ Low leakage current
- ◇ Low clamping voltage

### APPLICATIONS

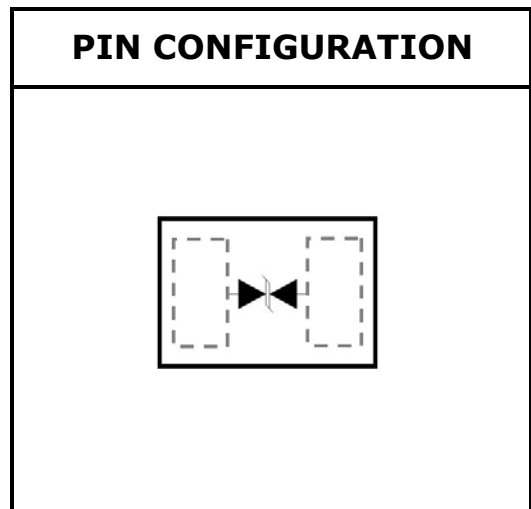
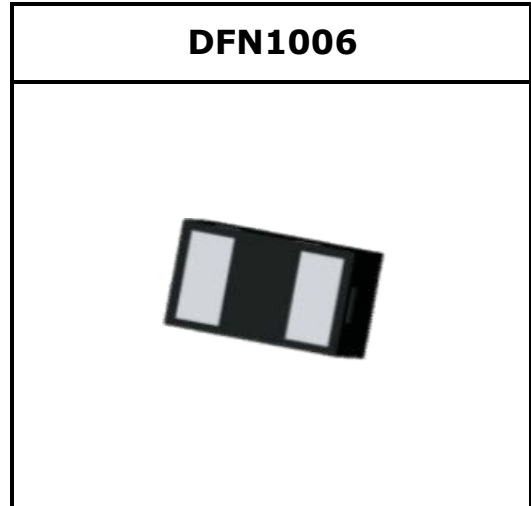
- ◇ Local Area Network (LAN) equipment
- ◇ FireWire
- ◇ Computers and peripherals
- ◇ Communication systems
- ◇ High-speed data lines

### MECHANICAL CHARACTERISTICS

- ◇ DFN1006 package
- ◇ Flammability Rating: UL 94V-0
- ◇ High temperature soldering guaranteed:  
260°C/10s
- ◇ Packaging: Tape and Reel
- ◇ Reel size: 7 inch

### ORDER INFORMATION

- ◇ Device: YSESD0801S-15CP
- ◇ Package: DFN1006
- ◇ Marking: 15BU
- ◇ Material: Halogen free
- ◇ Packing: Tape & Reel
- ◇ Quantity per reel: 10,000pcs



# DEVICE CHARACTERISTICS

## YSESD0801S-15CP

### ABSOLUTE MAXIMUM RATING

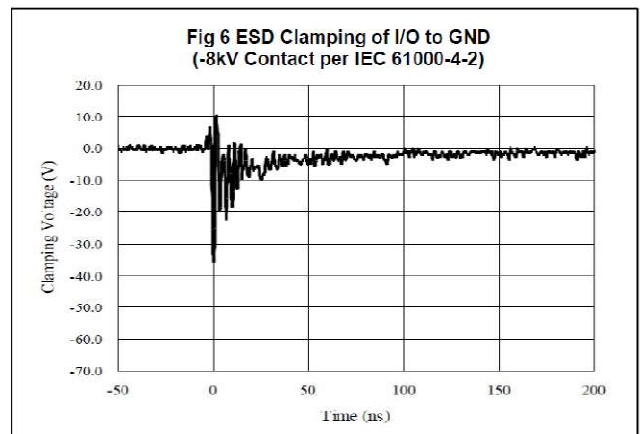
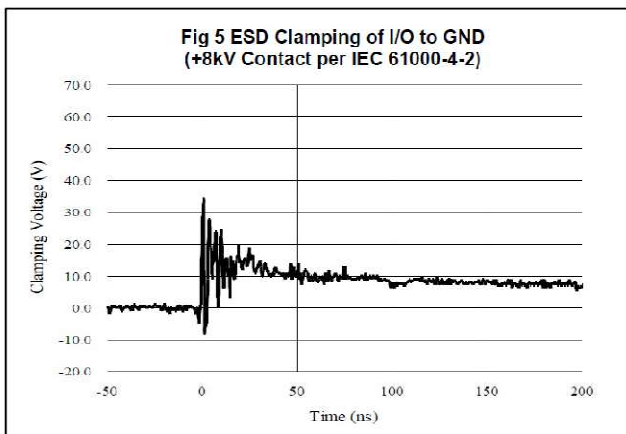
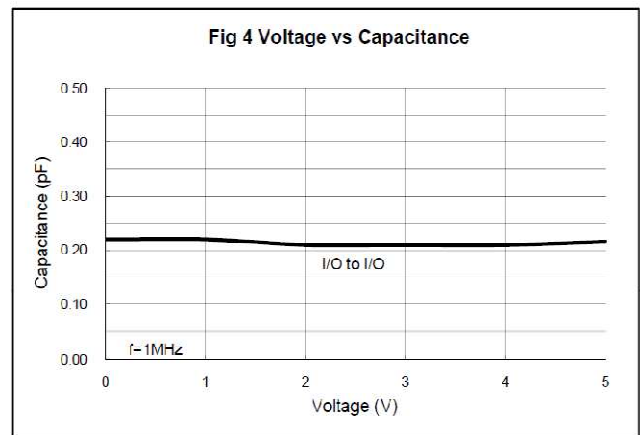
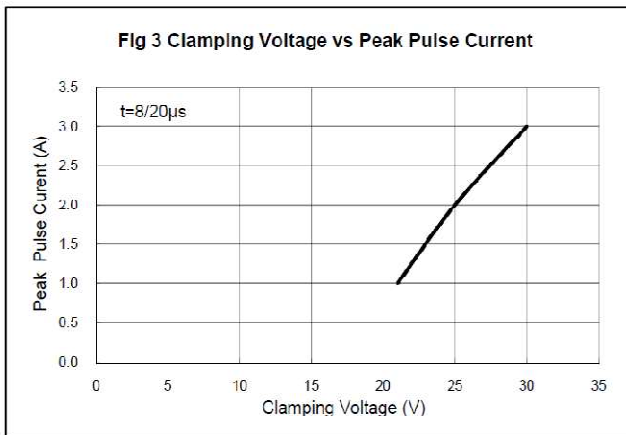
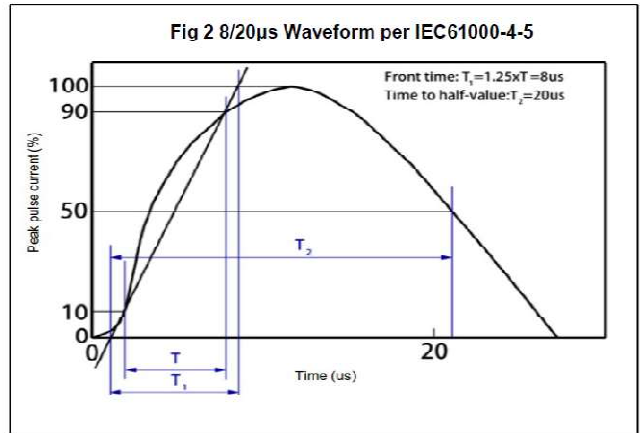
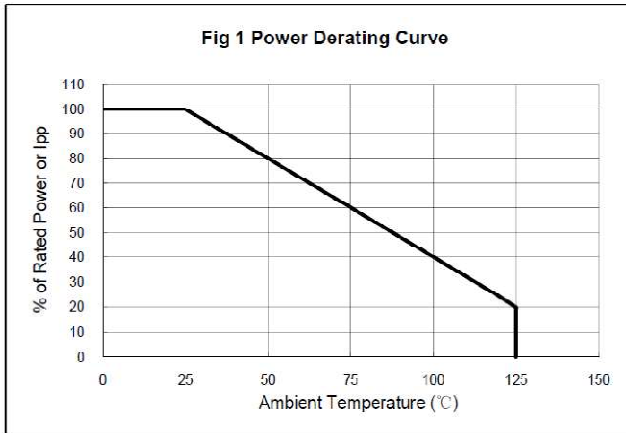
Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	$\pm 15$ $\pm 20$	kV
$P_{PP}$	Peak Pulse Power (8/20 $\mu$ s)	70	W
$T_{OPT}$	Operating Temperature	-55~125	$^{\circ}$ C
$T_{STG}$	Storage Temperature	-55~150	$^{\circ}$ C

### ELECTRICAL CHARACTERISTICS (Tamb=25 $^{\circ}$ C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				15	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	16			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 15\text{V}$			500	nA
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			25	V
		$I_{PP} = 2\text{A}, t_p = 8/20\mu\text{s}$			35	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		0.25	0.40	pF

# DEVICE CHARACTERISTICS

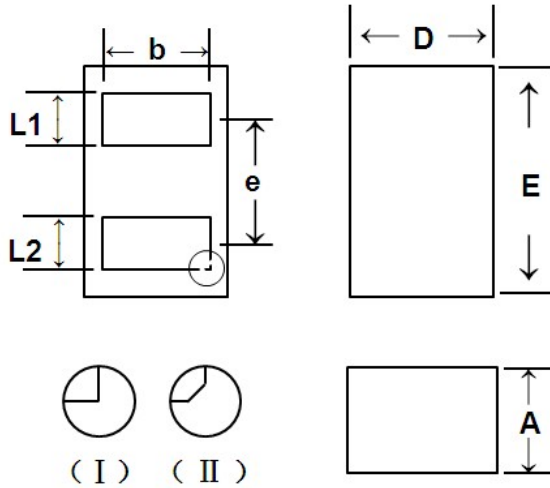
## YSESD0801S-15CP



# PACKAGE OUTLINE & DIMENSIONS

YSESD0801S-15CP

## DFN1006 PACKAGE OUTLINE DIMENSIONS



**NOTE: ALL DIMENSIONS IN MM**

	MIN	NOM	MAX
<b>D</b>	<b>0.55</b>	<b>0.60</b>	<b>0.65</b>
<b>E</b>	<b>0.95</b>	<b>1.00</b>	<b>1.05</b>
<b>L1</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
<b>L2</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
<b>A</b>	<b>0.45</b>	<b>0.50</b>	<b>0.55</b>
<b>b</b>	<b>0.45</b>	<b>0.50</b>	<b>0.55</b>
<b>e</b>		<b>0.64BSC</b>	

