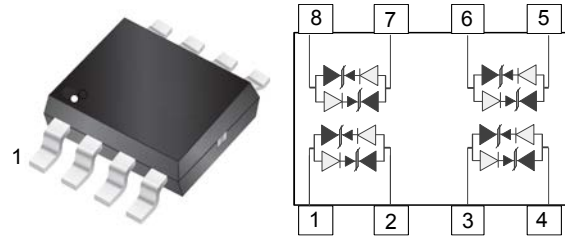


Features

- 500Watts peak pulse power ($t_p = 8/20\mu s$)
- SOIC-8 Package
- Protects two line pairs
- Protects Up to four line pairs
- Low clamping voltage
- Low leakage current
- Low capacitance
- Transient protection for high-speed data lines to :
 - IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 25A (8/20 μs)



Mechanical Data

- **Case:** SOIC-8 (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

- 10/100 Ethernet
- Integrated magnetics/RJ-45 connectors
- LAN/WAN Equipment
- Security Cameras
- Industrial Controls
- Peripherals
- Notebooks & Desktop Computers

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}	500	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30/30	kV
Peak Pulse Current ($T_P = 8/20\mu s$)	I_{PP}	25	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

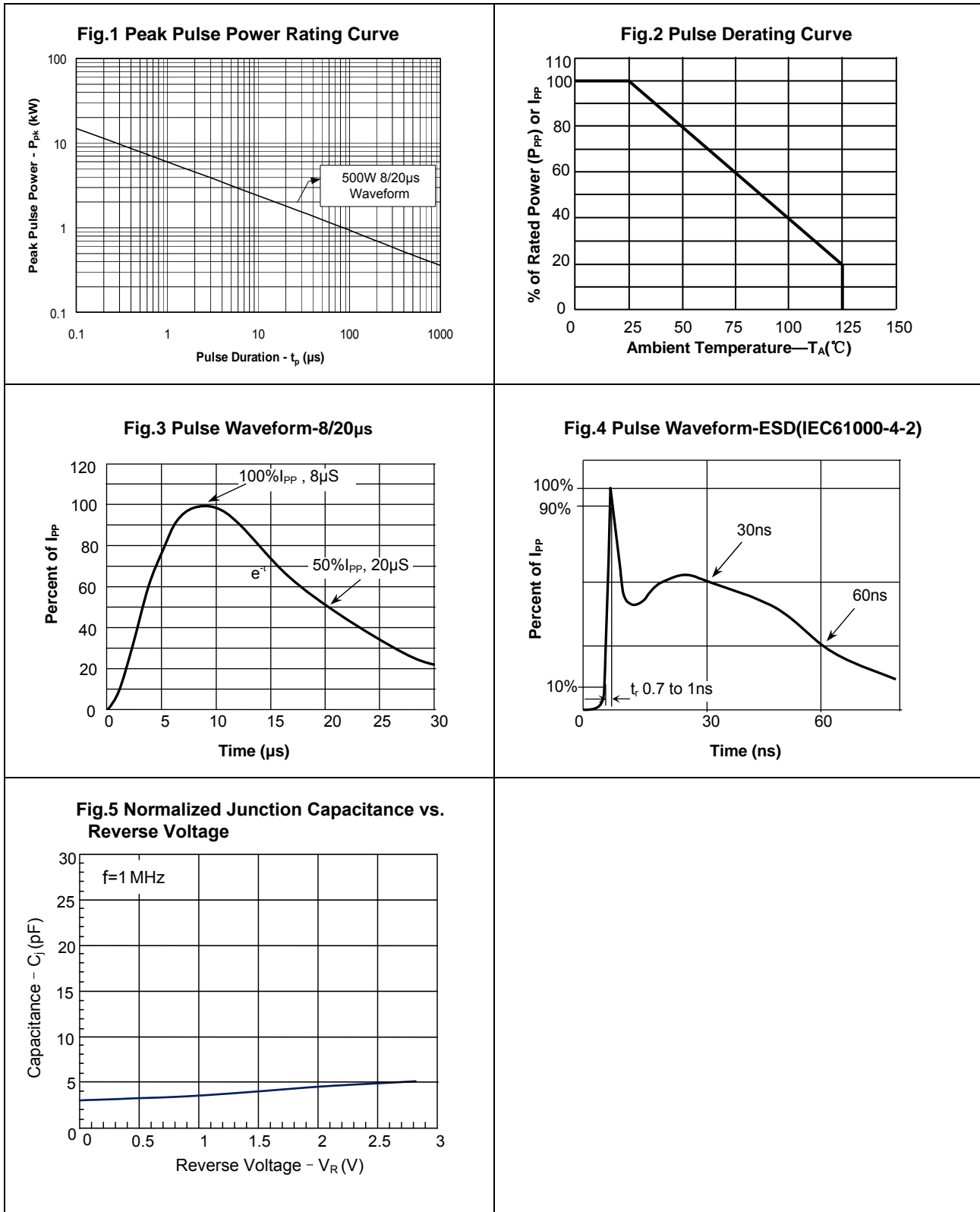
Electrical Characteristics

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				2.8	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.0			V
Reverse Leakage Current	I_R	$V_R=2.8V$			0.5	μA
Clamping Voltage	V_C	$I_{PP}=5A, T_P=8/20\mu s$		10		V
Clamping Voltage	V_C	$I_{PP}=25A, T_P=8/20\mu s$		20		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		3		pF



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

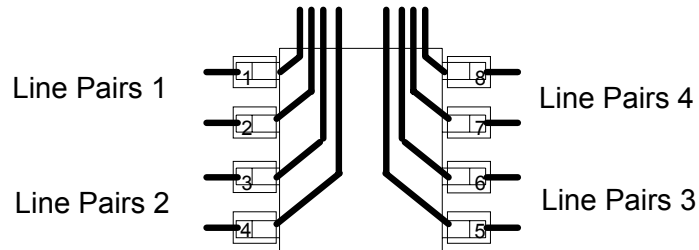




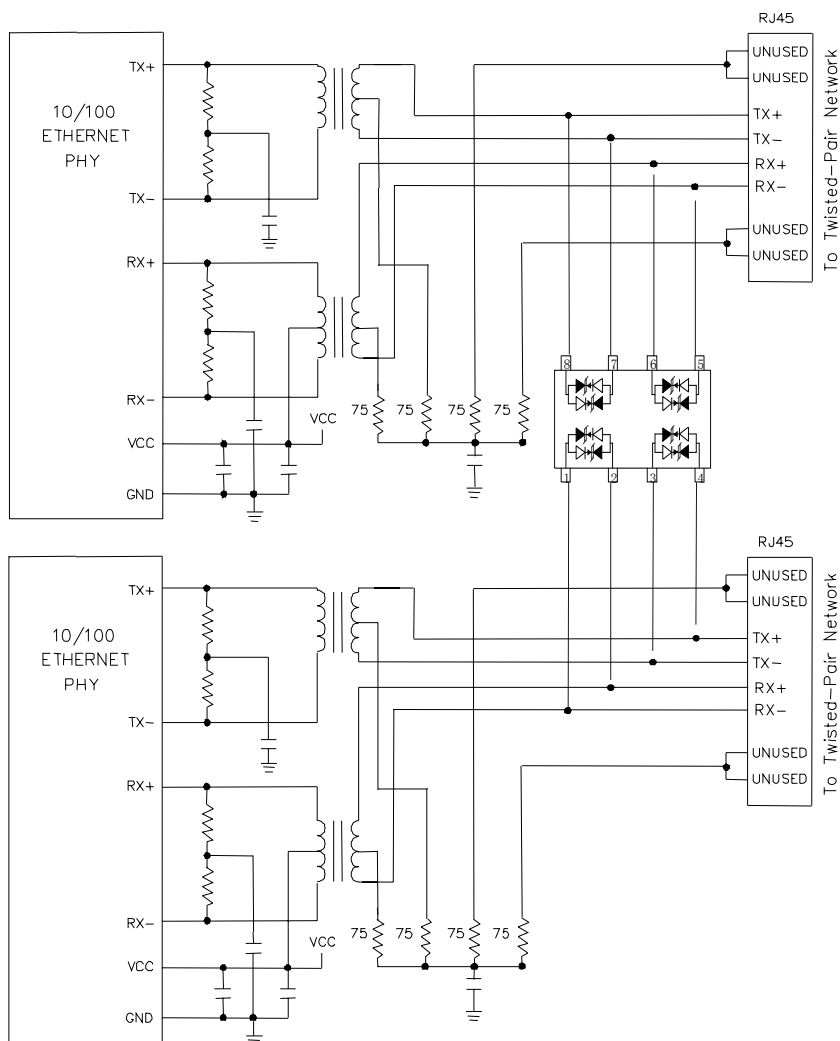
Application Information

Device Connection for Protection of Eight Data Lines

Electronic equipment is susceptible to transient disturbances from a variety of sources including: ESD to an open connector or interface, direct or nearby lightning strikes to cables and wires, and charged cables “hot plugged” into I/O ports. The YELSOP82T25AG is designed to protect sensitive components from damage and latch-up which may result from such transient events. The YELSOP82T25AG can be configured to protect four high-speed line pairs differentially, or four lines to ground (common mode). The device is connected as follows:

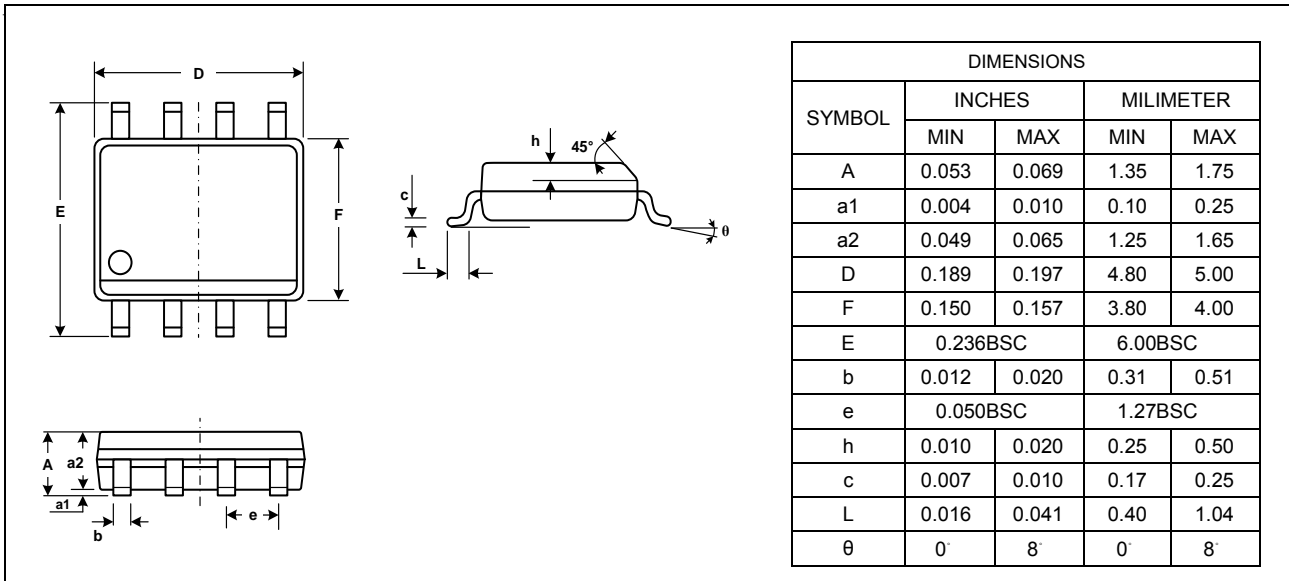


Differential Protection of Four Line Pairs

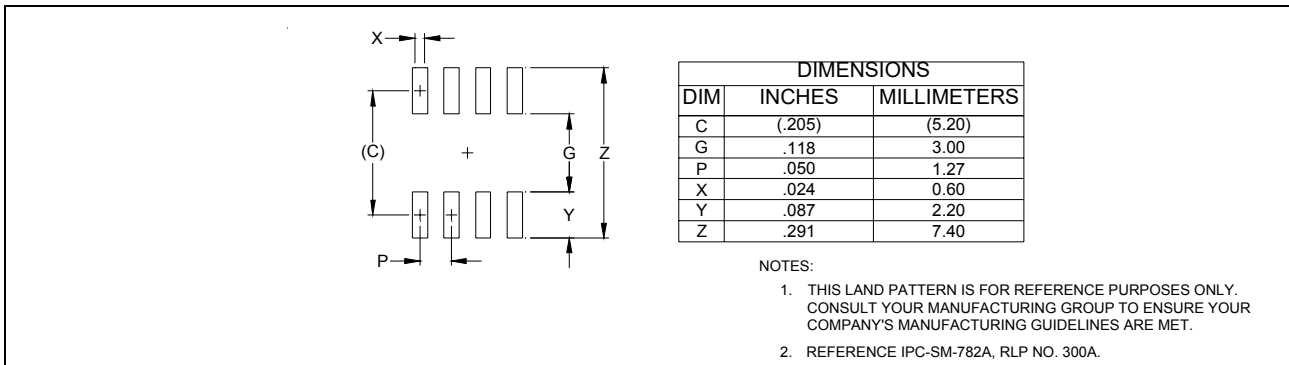


One YELSOP82T25AG Protecting Two 10/100 Ethernet Port

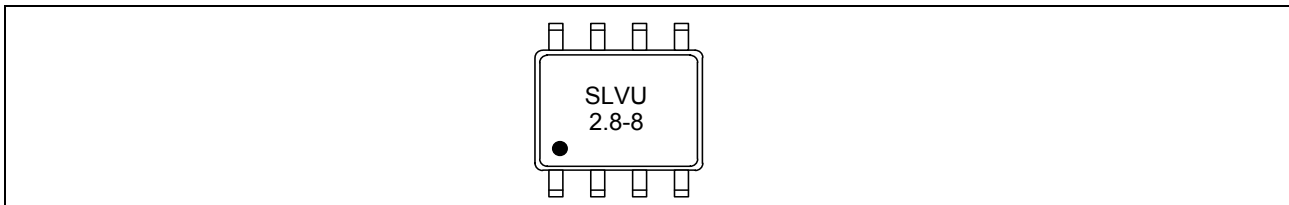
Package Dimensions



Pad Dimensions



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
YELSOP82T25AG	SOIC-8	Tape and reel	2500pcs / reel	EIA STD RS-481