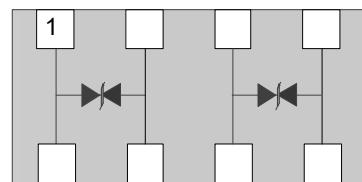


Features

- 50Watts peak pulse power ($T_p = 8/20\mu s$)
- DFN2010-8 Package
- Protects Up To Two Bidirectional I/O Lines
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (0.5pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
IEC 61000-4-2 $\pm 20\text{KV}$ contact $\pm 20\text{KV}$ air
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 9A (8/20 μs)



Mechanical Data

- **Case:** DFN2010-8 (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

- 10/100/1000 Ethernet
- Integrated magnetics/RJ-45 connectors
- LAN/WAN Equipment
- Security Cameras
- Industrial Controls
- Security Cameras
- Industrial Controls

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

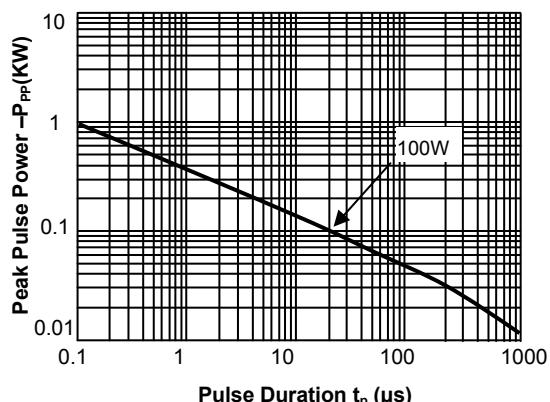
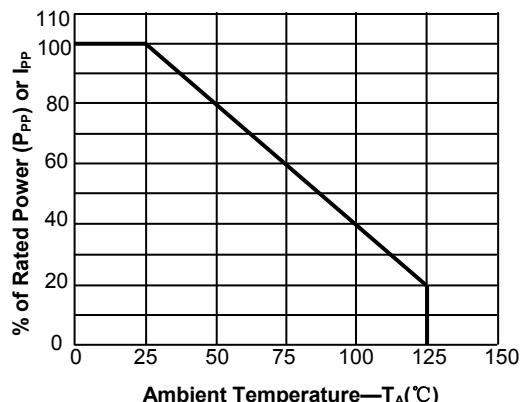
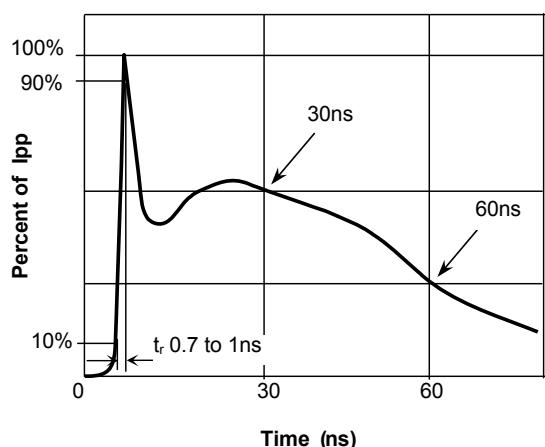
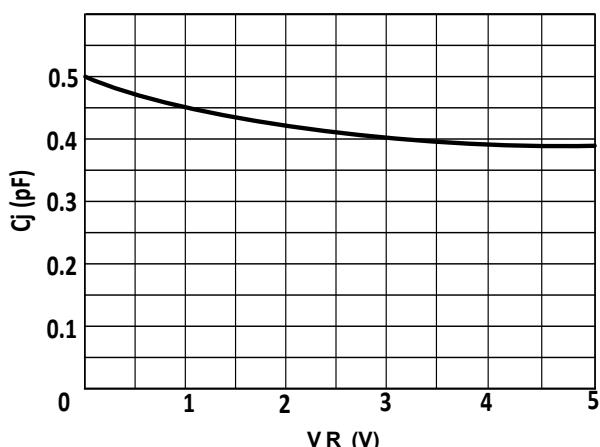
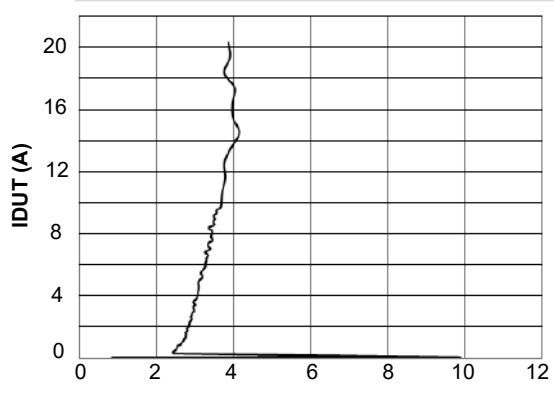
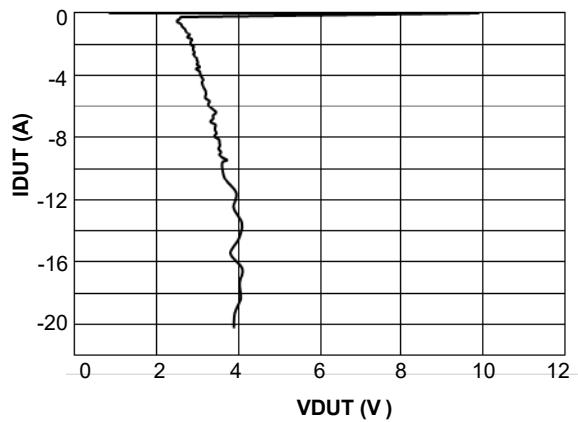
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_p=8/20\mu s$)	P_{PP}	50	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	20/20	kV
Peak Pulse Current ($T_p = 8/20\mu s$)	I_{PP}	9	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				2.5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	5			V
Reverse Leakage Current	I_R	$V_R=2.5\text{V}$			1	uA
Clamping Voltage(SURGE)	V_C	$I_{PP}=9\text{A}, T_p=8/20\mu s$		5		V
Clamping Voltage(TLP)	V_C	$I_{PP}=16\text{A}, T_p=100\text{ns}$		4		V
Dynamic Resistance	R_{dyn}	$T_p=100\text{ns}$		0.075		Ω
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}, \text{I/O to GND}$		0.5		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 IEC61000-4-2 Waveform

Fig.4 Junction Capacitance vs VR

Figure5: Positive Clamping voltage (TLP)

Figure6: Negative Clamping voltage (TLP)


Package Dimensions

DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.45	0.55	0.018	0.022
A1	0.00	0.046	0.000	0.002
A2	0.110REF		0.005REF	
b	0.200	0.300	0.008	0.012
D	1.924	2.076	0.076	0.082
E	0.924	1.076	0.036	0.042
e	0.500TYP		0.020TYP	
L	0.274	0.426	0.011	0.017
K	0.200MIN		0.008MIN	

PAD Dimensions

DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	0.035	0.875
G	0.008	0.2
P	0.020	0.5BSC
X	0.014	0.35
Y	0.018	0.45
Z	0.043	1.10

Notes

1. This Land Pattern Is For Reference Purposes
Only Consult Your Manufacturing Group To Ensure Your Company's Manufacturing Guidelines Are Met.
2. Reference IPC-SM-782A, RLP NO. 300A.

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
YEU20C82R09AB	U25	DFN2010-8	Tape and reel	3000pcs / reel	EIA STD RS-481