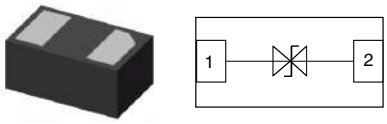
YEUD102053A5G

ESD Protection Diode

Features

- 60Watts peak pulse power (T_P = 8/20μs)
- DFN1006-2 package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Ultra Low capacitance (Cj=0.3pF typ.)
- Protection one data/power line to:
  IEC 61000-4-2 ±18kV contact ±20kV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 3.5A (8/20μs)



Mechanical Data

- **Case:** DFN1006-2 (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

- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDA's)
- Microprocessor based equipment
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μs)	P_{PP}	60	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	18/20	kV
Peak Pulse Current (T_P = 8/20μs)	I_{PP}	3.5	A
Junction Temperature	T_J	-55 to +125	℃
Storage temperature	T_{STG}	-55 to +150	℃

Electrical Characteristics

(T_A = 25 °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	6.0	7.0		V
Reverse Leakage Current	I_R	V_{RWM}=5V			100	nA
Clamping Voltage	V_C	I_{PP}=3.5A,T_P=8/20μs		15		V
Clamping Voltage(TLP)	V_C	I_{PP}=16A, T_P=100ns			15	V
Dynamic Resistance	R_{dyn}	T_P=100ns		0.55		Ω
Junction Capacitance	C_J	V_R=0V, f=1MHz		0.3		pF

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

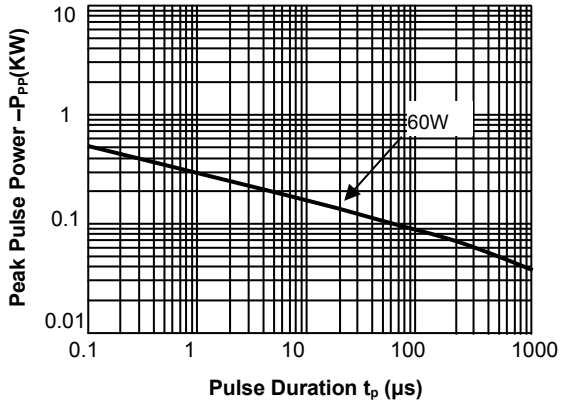


Fig.2 Pulse Derating Curve

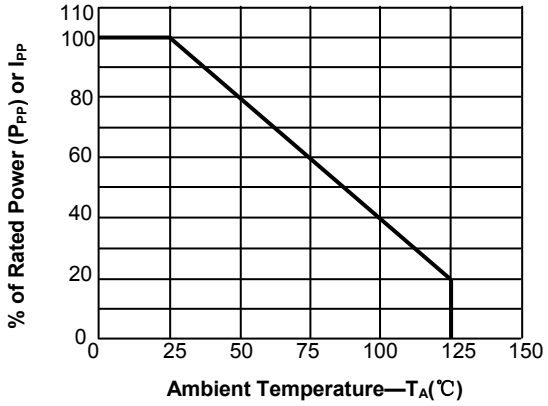


Fig.3 Pulse Waveform-8/20μs

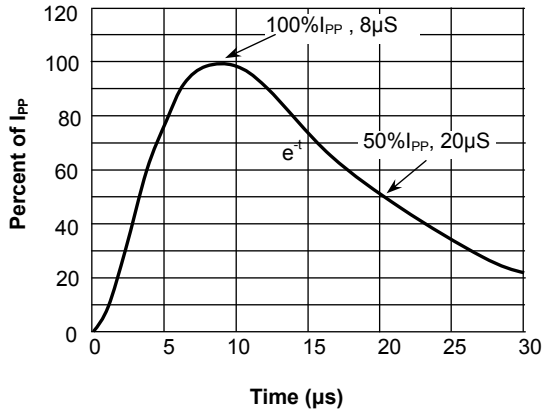


Fig.4 Clamping Voltage vs.Ipp

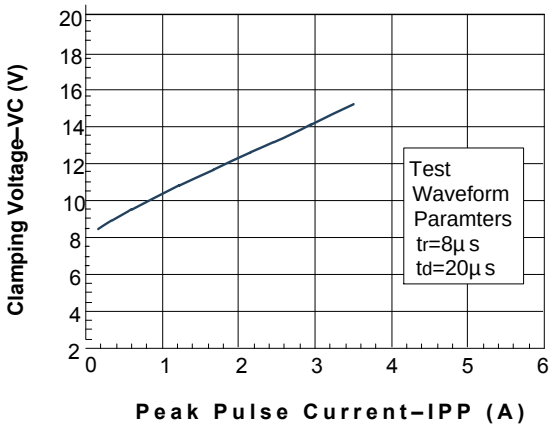


Figure5: Positive Clamping voltage (TLP)

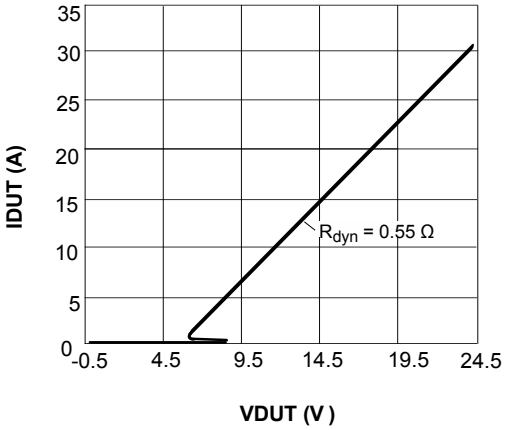
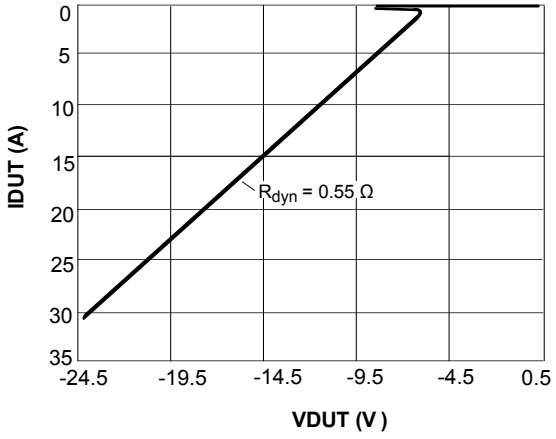
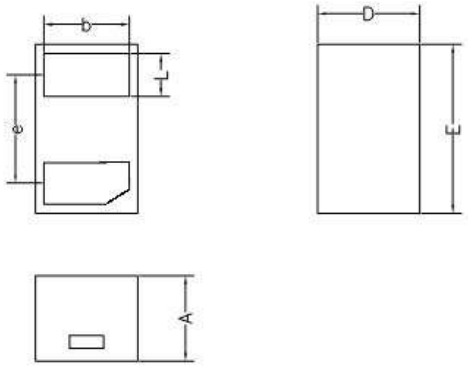


Figure6: Negative Clamping voltage (TLP)

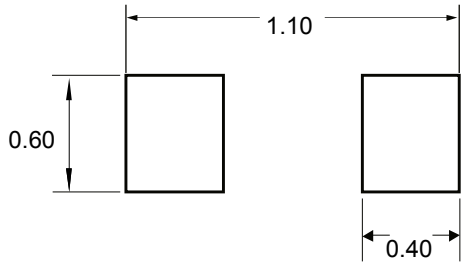


Package Dimensions



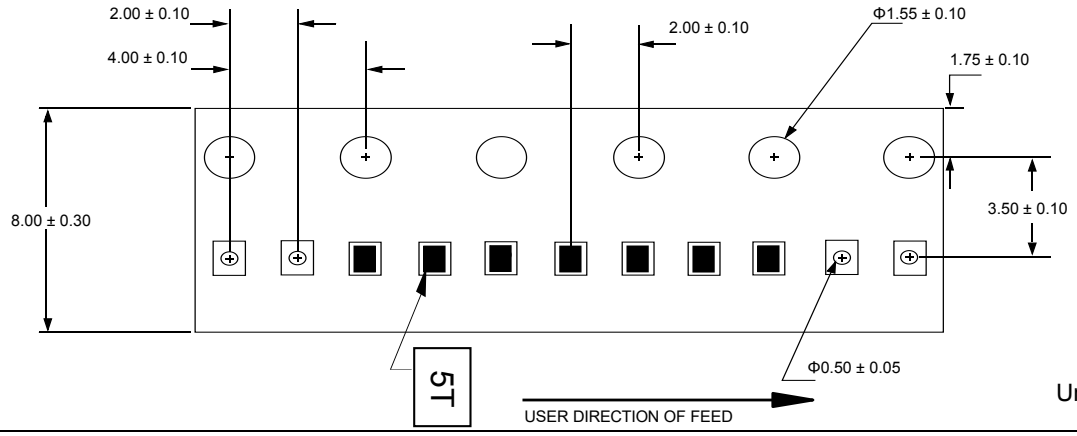
Symbol	Dimensions in millimeters		
	Min	Nom	Max
D	0.55	0.60	0.65
E	0.95	1.00	1.05
b	0.45	0.50	0.55
L	0.20	0.25	0.30
e		0.64 BSC	
A	0.40	0.50	0.55

Pad Dimensions



Unit:mm

Tape and Reel Specification



Unit:mm

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
YEUD102053A5G	5T	DFN1006-2	Tape and reel	10000pcs / reel	EIA STD RS-481