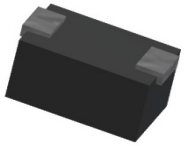
Bidirectional TVS for ESD Protection Diodes

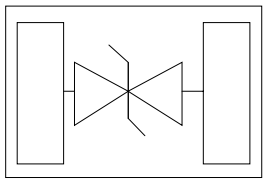
Features

- Peak Power Dissipation −60 W (8 x 20 us Waveform)
- Stand-off Voltage: 3.3 V
- Replacement for MLV (0402)
- Protects I/O or Power Port
- Low Clamping Voltage
- Low Leakage
- Response Time is < 1 ns
- Meets MSL 1 Requirements
- ROHS compliant
- Solid-state Punch-Through TVS Process technology

DFN1006



PIN CONFIGURATION



Main applications

- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV
- Cellular handsets and accessories
- Portable instrumentation
- Peripherals
- MP3 Players

Protection solution to meet

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-5 (Lightning)7A (8/20μs)

Ordering Information

Device	Marking	Qty per Reel	Reel Size
YSESD3325CP	3X	10000	7 Inch

DEVICE CHARACTERISTICS

YSESD3325CP

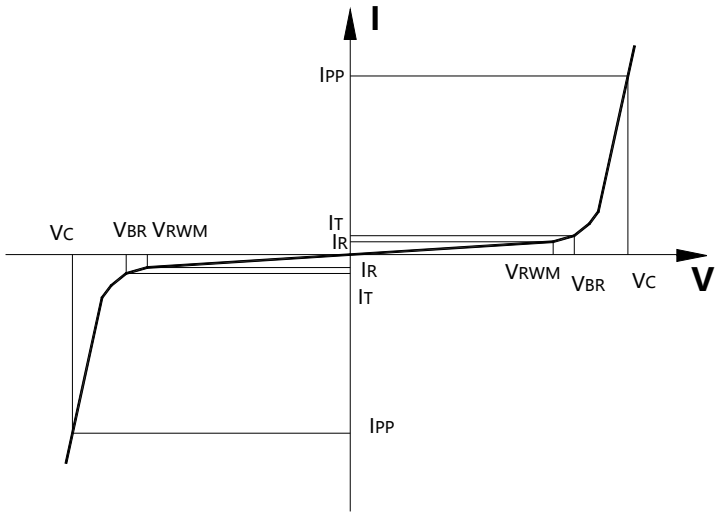
Maximum ratings (Tamb=25℃ Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P_{PPP}	60	Watts
ESD Rating per IEC61000-4-2： Contact Air		30 30	KV
Lead Soldering Temperature	T_L	260 (10 sec.)	℃
Operating Temperature Range	T_J	-55 ~ 150	℃
Storage Temperature Range	T_{STG}	-55 ~ 150	℃
Lead Solder Temperature − Maximum (10 Second Duration)	T_L	260	℃

Electrical characteristics (Tamb=25℃ Unless Otherwise Specified)

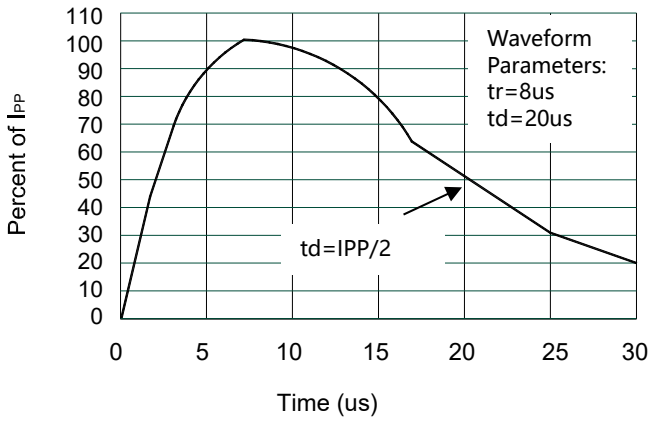
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
V_{RWM}	Reverse Working Voltage				3.3	V
V_{BR}	Reverse Breakdown Voltage	IT = 1mA,	4.0			V
I_R	Reverse Leakage Current	V_{RWM} = 3.3V,		0.05	1	μA
V_C	Clamping Voltage	I_{PP} = 1A, tp =8/20μs,			7.6	V
		I_{PP} = 7A, tp =8/20μs,		9	15	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz,		18	25	pF

Symbol	Parameter
V_{RWM}	Working Peak Reverse Voltage
V_{BR}	Breakdown Voltage @ I_T
V_C	Clamping Voltage @ I_{PP}
I_T	Test Current
I_{RM}	Leakage current at V_{RWM}
I_{PP}	Peak pulse current
C_O	Off-state Capacitance
C_J	Junction Capacitance

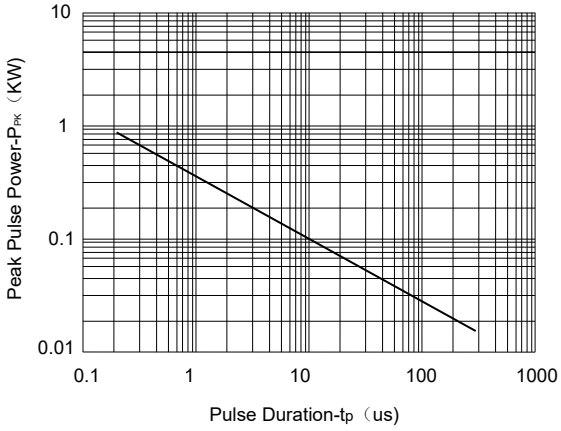


DEVICE CHARACTERISTICS

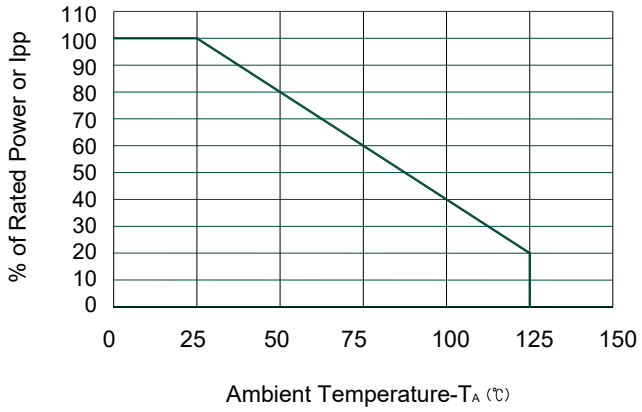
YSESD3325CP



Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve

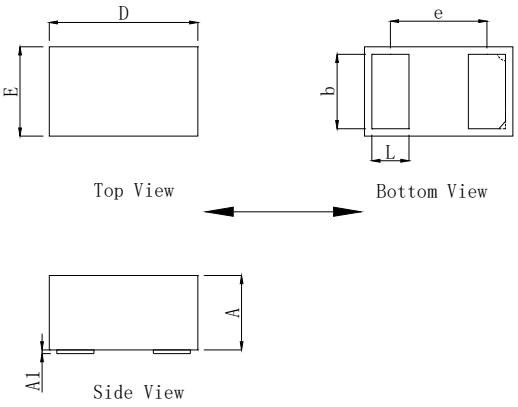
PACKAGE OUTLINE & DIMENSIONS

YSESD3325CP

Mechanical Data

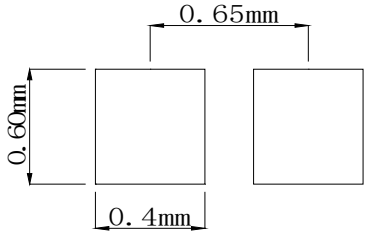
Case:DFN1006

Case Material: Molded Plastic. UL Flammability

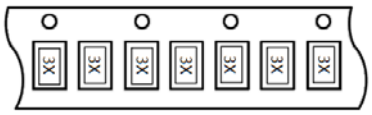


DIM	Millimeters	
	Min	Max
A	0.37	0.55
A1	0.00	0.05
D	0.95	1.05
E	0.48	0.65
b	0.35	0.55
e	0.65TYP	
L	0.15	0.35

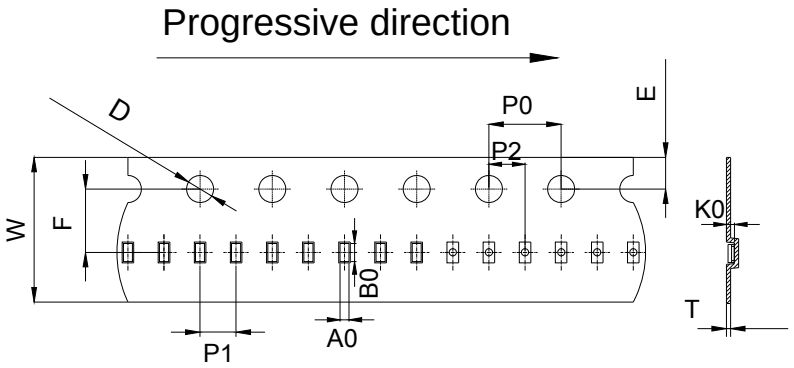
Recommended Pad outline



Device Orientation in Tape



DFN1006 Reel Dim



PACKAGE	W	E	F	P0	D	P2	P1	T	A0	B0	K0
DFN1006	8mm ±0.1	1.75mm ±0.1	3.5mm ±0.05	4mm ±0.1	1.5mm ±0.1	2mm ±0.05	2mm ±0.1	0.23mm ±0.02	0.67mm ±0.05	1.2mm ±0.05	0.55mm ±0.05