



DATA SHEET

SEMICONDUCTOR

YSDAxx01P

UNIDIRECTIONAL TVS DIODE



APPLICATIONS

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

IEC COMPATIBILITY

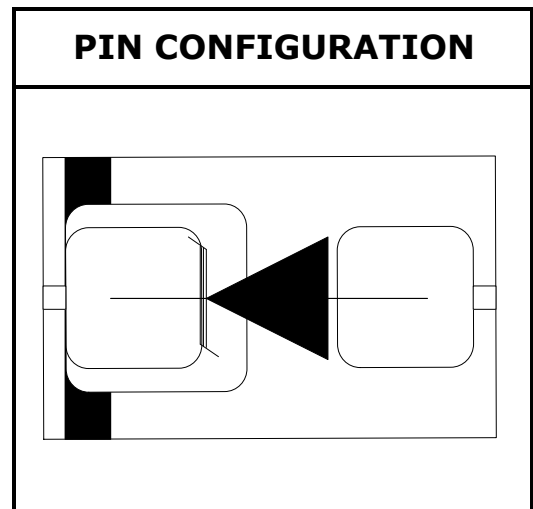
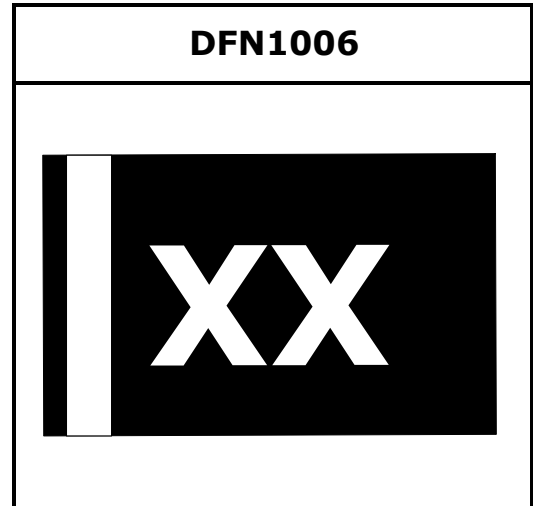
- ◆ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)

FEATURES

- ◆ 200 Watts Peak Pulse Power per Line (tp=8/20μs)
- ◆ Protects one Unidirectional I/O line
- ◆ Low clamping voltage
- ◆ Working voltages : 3, 5, 8, 12, 15 and 24V
- ◆ Low leakage current

MECHANICAL CHARACTERISTICS

- ◆ DFN1006 (1.0x0.6x0.5mm) Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 0.5 Milligrams (Approximate)
- ◆ Quantity Per Reel : 10,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



DEVICE CHARACTERISTICS

YSDAxx01P

MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	200	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)									
PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(μA) (max.)	(pF) (typ.)
YSDA0301P	YA	3	4	1	6	15	17	200	200
YSDA0501P	YB	5	6	1	9	16	16	5	110
YSDA0801P	YC	8	8.5	1	13	18	13	5	70
YSDA1201P	YD	12	13.3	1	17	28	7	1	60
YSDA1501P	YE	15	16.6	1	23	32	6	1	50
YSDA2401P	YH	24	26.7	1	36	55	3	1	25

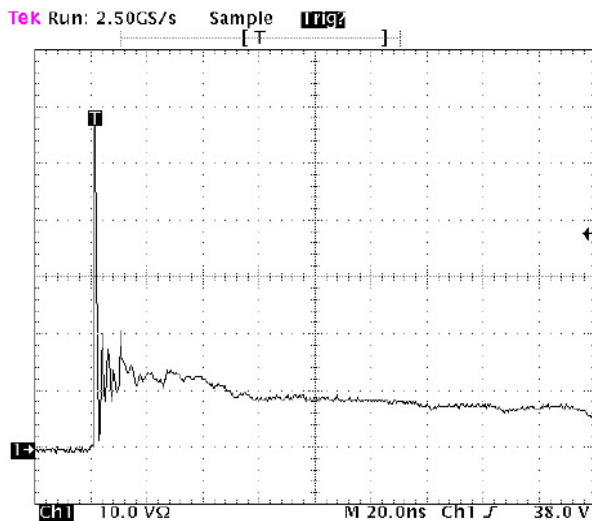


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

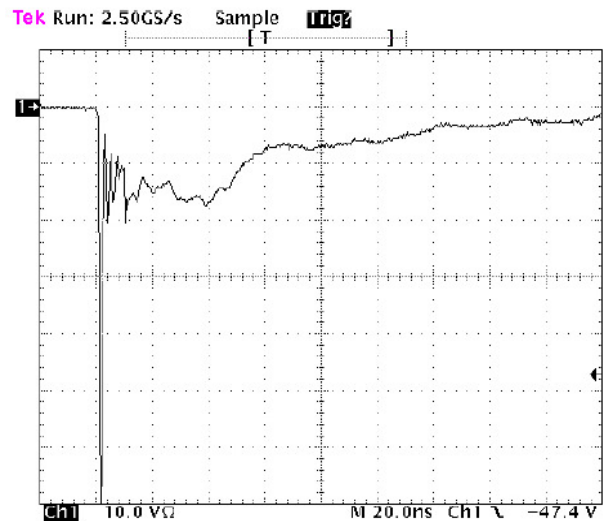
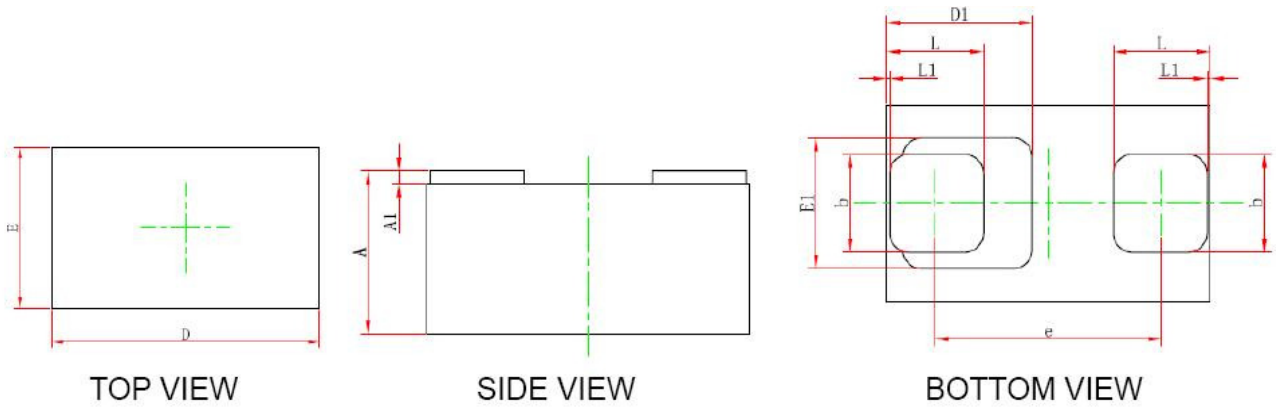


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

PACKAGE OUTLINE & DIMENSIONS

YSDAxx01P

DNF1006



PACKAGE DIMENSIONS

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.070	0.000	0.003
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
D1	0.450REF.		0.018REF.	
E1	0.400REF.		0.016REF.	
b	0.275	0.325	0.011	0.013
e	0.675	0.725	0.027	0.029
L	0.275	0.325	0.011	0.013
L1	0.010REF.		0.000REF.	

* SOLDERING FOOTPRINT

