



SEMICONDUCTOR

DATA SHEET

YSOTxxC



TVS DIODE ARRAY FOR LATCH-UP PROTECTION

APPLICATIONS

- ◆ Portable Electronics
- ◆ Cellular Handsets and Accessories
- ◆ Industrial Controls
- ◆ Portable instrumentation
- ◆ Set-Top Box
- ◆ Peripherals

IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact) -- $3.0\text{V} \sim 15\text{V}$
- ◆ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact) -- $24\text{V} \sim 36\text{V}$
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)
- ◆ IEC61000-4-5 (Lightning) 5A (8/20 μs)

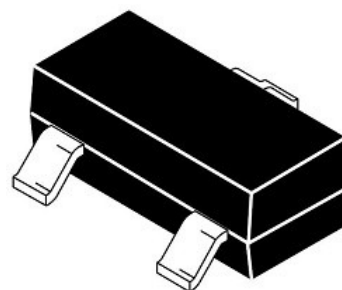
FEATURES

- ◆ 400 Watts Peak Pulse Power per Line ($t_p=8/20\mu\text{s}$)
- ◆ Protects two I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages: $3.0\text{V} \sim 36\text{V}$
- ◆ Low leakage current

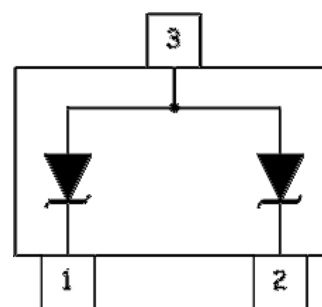
MECHANICAL CHARACTERISTICS

- ◆ JEDEC SOT-23 Package
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight 8 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

SOT-23



PIN CONFIGURATION



DEVICE CHARACTERISTICS

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MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	400	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) (max.)	V _B (V) (min.)	I _T (mA)	V _C @1A (max.)	V _C (max.) (@A)		I _R (μA) (max.)	C _T (pF) (typ.)
YSOT03C	B03C	3.0	4.0	1	7.5	8.5	5	5	120
YSOT05C	B05C	5.0	6.0	1	9.8	9.8	5	5	110
YSOT08C	B08C	8.0	8.2	1	13.4	15.0	5	1	70
YSOT12C	B12C	12.0	13.3	1	19.0	17.0	5	1	60
YSOT15C	B15C	15.0	16.7	1	24.0	22.0	5	1	50
YSOT24C	B24C	24.0	26.7	1	43.0	32.0	3	1	25
YSOT36C	B36C	36.0	40.0	1	55.0	55.0	1	1	20

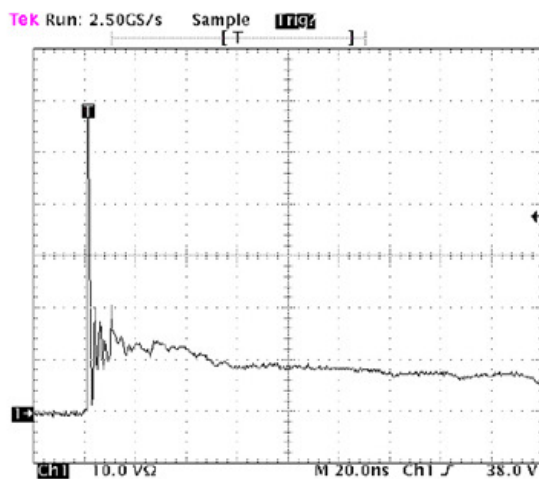


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

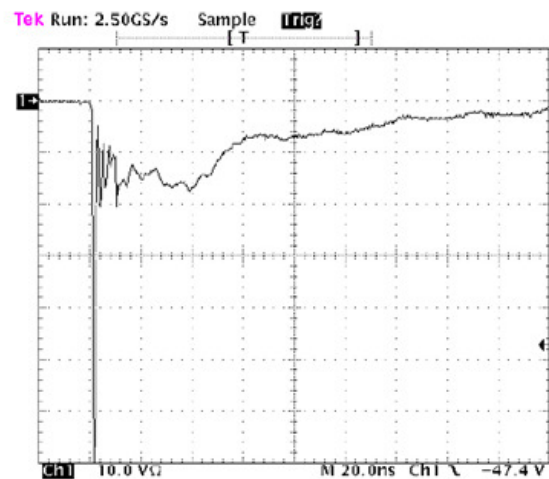
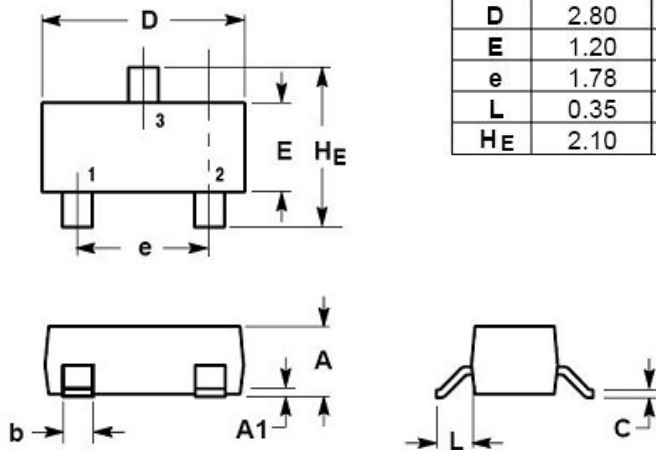


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

PACKAGE OUTLINE & DIMENSIONS

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DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.015	0.018	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104

* SOLDERING FOOTPRINT

