



DATA SHEET

SEMICONDUCTOR

YSOTxxC-A



TVS DIODE ARRAY FOR LATCH-UP PROTECTION

APPLICATIONS

- ◆ Portable Electronics
- ◆ Cellular Handsets and Accessories
- ◆ Industrial Controls
- ◆ Portable instrumentation
- ◆ Set-Top Box
- ◆ Peripherals
- ◆ AEC-Q101 qualified

IEC COMPATIBILITY

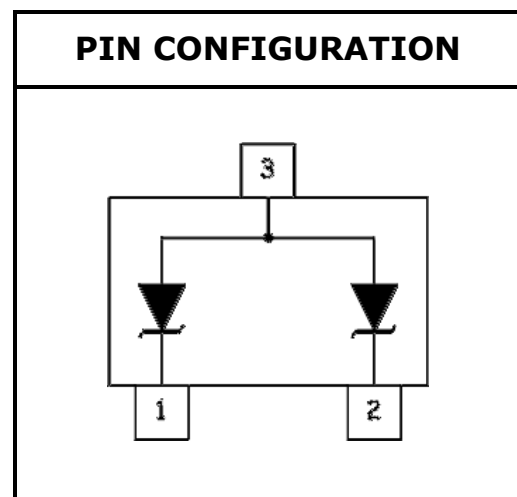
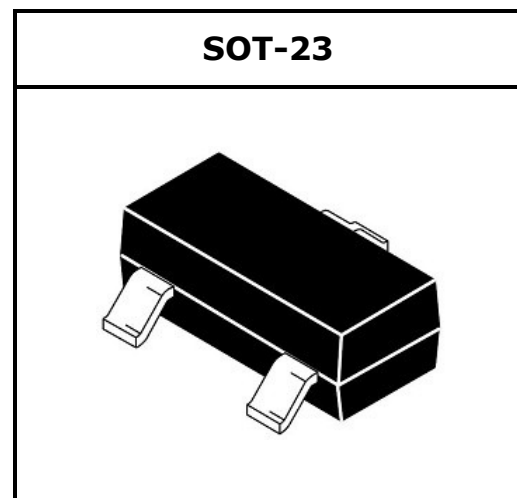
- ◆ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact) -- 3.0V~15V
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact) -- 24V~36V
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)
- ◆ IEC61000-4-5 (Lightning) 5A (8/20 μ s)

FEATURES

- ◆ 400 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- ◆ Protects two I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages: 3.0V ~ 36V
- ◆ Low leakage current

MECHANICAL CHARACTERISTICS

- ◆ JEDEC SOT-23 Package
 - Base P/N - RoHS compliant, commercial grade
 - Base P/N-A - RoHS compliant, AEC-Q101 qualified
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 8 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



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 _B	I _T	V _C	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(µA) (max.)	(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

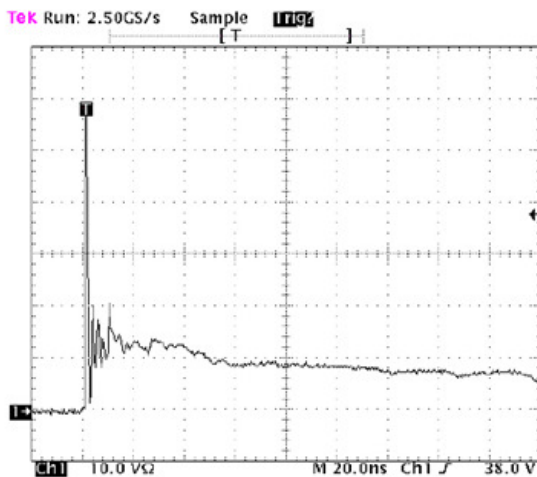


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

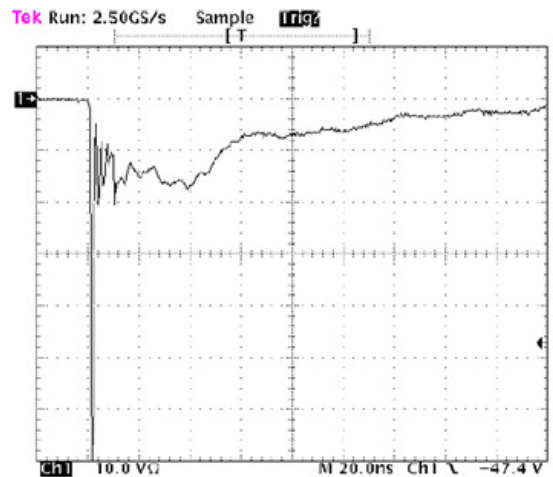
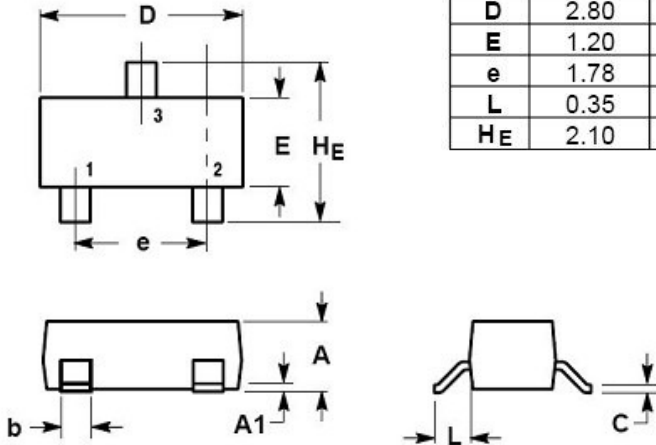


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

PACKAGE OUTLINE & DIMENSIONS

YSOT_{xx}C-A

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

