



DATA SHEET

SEMICONDUCTOR

YSDAxx02M3

UNIDIRECTIONAL TVS DIODE ARRAY



APPLICATIONS

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

IEC COMPATIBILITY

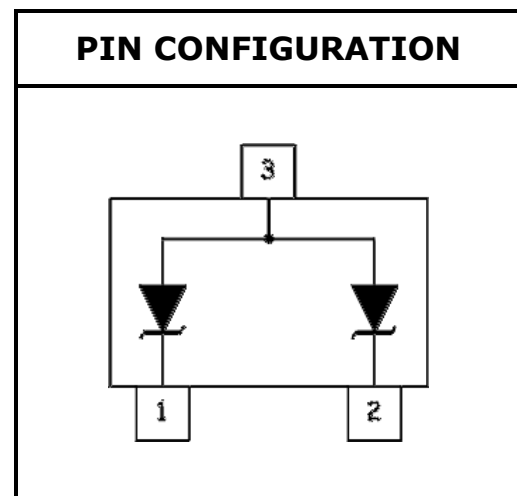
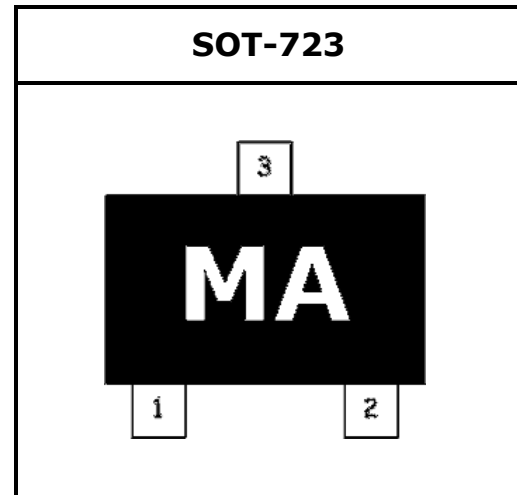
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 μ s)

FEATURES

- ◆ 60 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ◆ Protects two unidirectional I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages : 3.3V and 5.0V
- ◆ Low leakage current

MECHANICAL CHARACTERISTICS

- ◆ SOT-723 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 1.30 Milligrams (Approximate)
- ◆ Quantity Per Reel : 5,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



DEVICE CHARACTERISTICS

YSDAxx02M3

| MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified) | | | |
|---|------------------|---------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp=8/20µs waveform) | P _{PP} | 60 | 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.) | (min.) | (max.) | | @1A (max.) | @3A (max.) | | |
| YSDA3302M3 | M3 | 3.3 | 5.04 | 6.16 | 1 | 8.5 | 18 | 5 | 25 |
| YSDA0502M3 | MA | 5 | 6.32 | 7.08 | 1 | 9.8 | 20 | 1 | 22 |

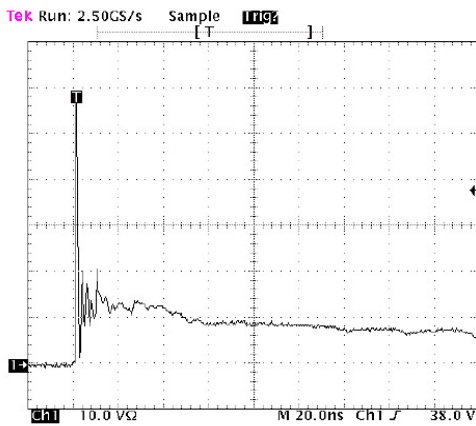


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

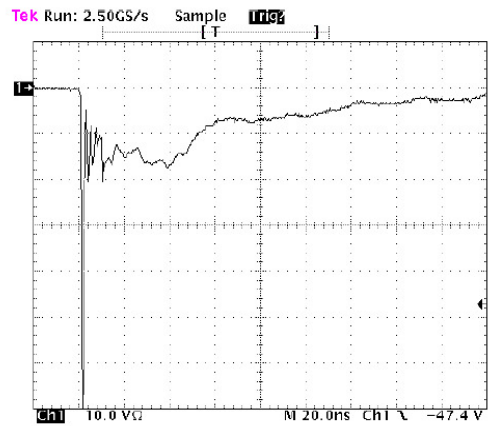
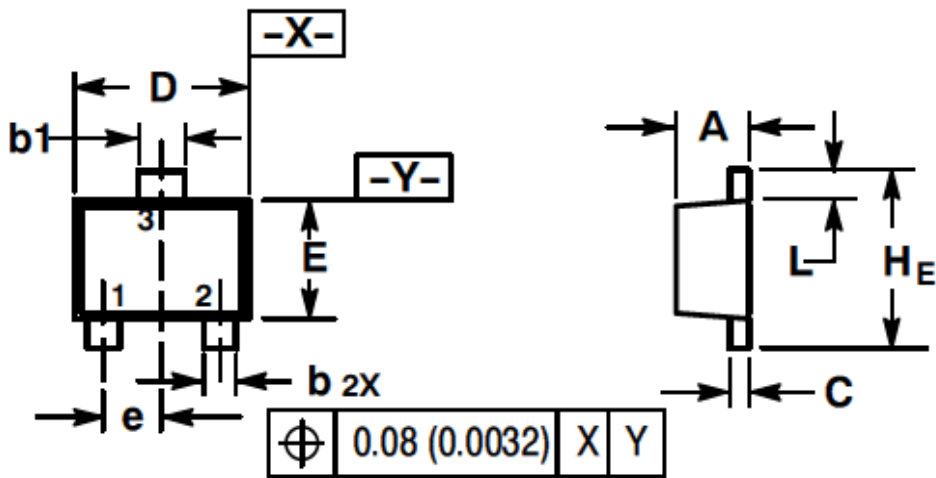


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

PACKAGE OUTLINE & DIMENSIONS

YSDAxx02M3



| DIM | MILLIMETERS | | | INCHES | | |
|----------------|-------------|------|------|-----------|--------|--------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.45 | 0.50 | 0.55 | 0.018 | 0.020 | 0.022 |
| b | 0.15 | 0.21 | 0.27 | 0.0059 | 0.0083 | 0.0106 |
| b1 | 0.25 | 0.31 | 0.37 | 0.010 | 0.012 | 0.015 |
| C | 0.07 | 0.12 | 0.17 | 0.0028 | 0.0047 | 0.0067 |
| D | 1.15 | 1.20 | 1.25 | 0.045 | 0.047 | 0.049 |
| E | 0.75 | 0.80 | 0.85 | 0.03 | 0.032 | 0.034 |
| e | 0.40 BSC | | | 0.016 BSC | | |
| H _E | 1.15 | 1.20 | 1.25 | 0.045 | 0.047 | 0.049 |
| L | 0.15 | 0.20 | 0.25 | 0.0059 | 0.0079 | 0.0098 |

* SOLDERING FOOTPRINT

