



SD03 THRU SD36

STANDARD CAPACITANCE TVS ARRAY / ESD 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) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 24A (8/20 μs)

FEATURES

- 500 Watts Peak Pulse Power per Line ($t_p=8/20\mu\text{s}$)
- Protects one I/O or power line
- Low clamping voltage
- Working voltages: 3.3V, 5V, 12V, 15V, 24V, 36V
- Low leakage current

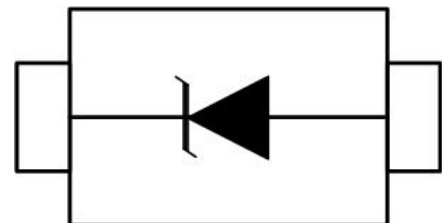
MECHANICAL CHARACTERISTICS

- JEDEC SOD-323 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 5 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

PACKAGE : SOD-323



PIN CONFIGURATION



UNIDIRECTIONAL



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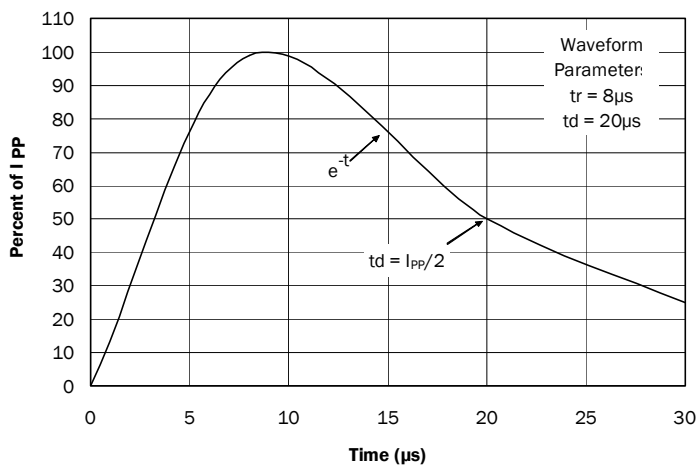
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DIVICE CHARACTERISTIC

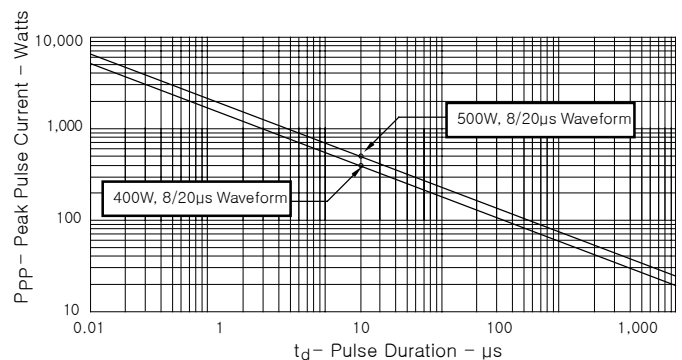
| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified | | | |
|---|--------|---------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp=8/20μs waveform) | PPP | 500 | Watts |
| Lead Soldering Temperature | TL | 260 (10 sec.) | °C |
| Operating Temperature Range | TJ | -55 ~ 150 | °C |
| Storage Temperature Range | TSTG | -55 ~ 150 | °C |

| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified | | | | | | | | |
|---|---------------|---------------|------|----------------|--------|------|----------------|----------------|
| PART NUMBER | VRWM | VB | IT | Vc | Vc | | IR | CT |
| | (V) (max.) | (V) (min.) | (mA) | @1mA (max.) | (max.) | (@A) | (μA) (max.) | (pF) (max.) |
| SD03 | 3.3 | 4 | 1 | 6.5 | 10.9 | 30 | 40 | 500 |
| SD05 | 5 | 6 | 1 | 9.8 | 13.5 | 24 | 10 | 350 |
| SD12 | 12 | 13.3 | 1 | 19 | 25.9 | 15 | 1 | 150 |
| SD15 | 15 | 16.7 | 1 | 24 | 30 | 12 | 1 | 100 |
| SD18 | 18 | 20 | 1 | 29 | 40 | 9 | 1 | 90 |
| SD24 | 24 | 26.7 | 1 | 43 | 48 | 8 | 1 | 90 |
| SD36 | 36 | 40 | 1 | 60 | 75 | 5 | 1 | 75 |

Pulse Waveform



PEAK PULSE POWER VS PULSE TIME

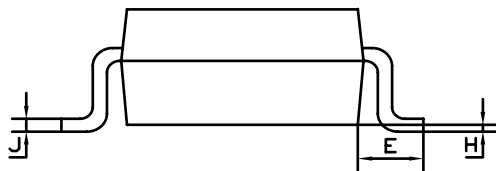
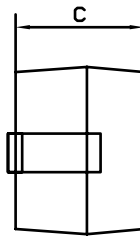
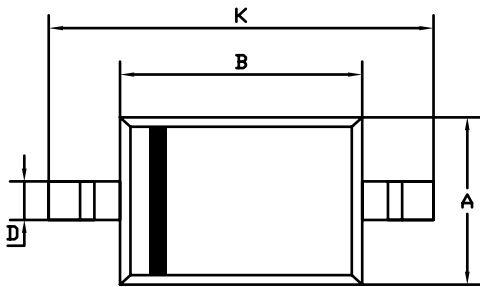




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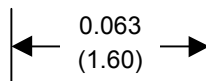
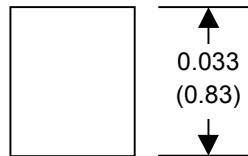
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SOD-323 PACKAGE OUTLINE & DIMENSIONS



| SOD-323 | | |
|----------------------|-------------|-------|
| Dim | Min | Max |
| A | 1.275 | 1.325 |
| B | 1.675 | 1.725 |
| C | 0.9 Typical | |
| D | 0.25 | 0.35 |
| E | 0.27 | 0.37 |
| H | 0.02 | 0.1 |
| J | 0.1 Typical | |
| K | 26 | 27 |
| All Dimensions in mm | | |

SUGGESTED SOLDER PAD LAYOUT



inches(mm)