



SEMICONDUCTOR

DATA SHEET

YSPLCxxC

LOW CAPACITANCE TVS DIODE ARRAY



APPLICATIONS

- ◆ High-Speed Data Lines
- ◆ Microprocessor Based Equipment
- ◆ LAN/WAN Equipment
- ◆ Notebooks, Desktops, and Servers
- ◆ Instrumentation
- ◆ 10/100 Ethernet

IEC COMPATIBILITY

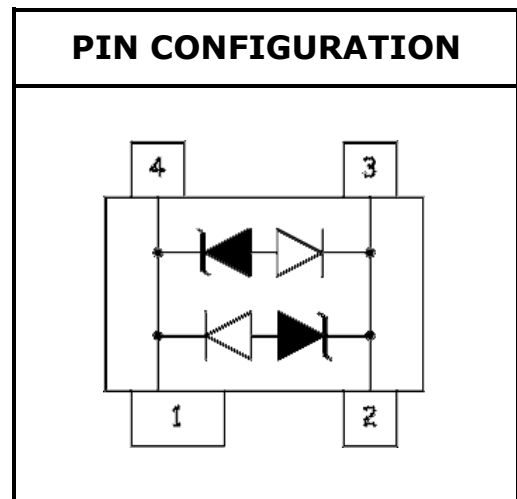
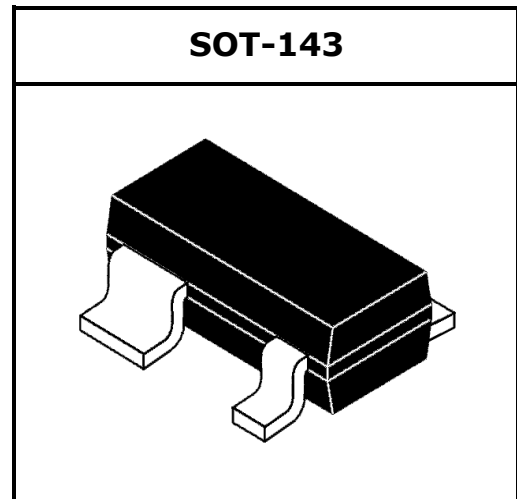
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)

FEATURES

- ◆ 350 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- ◆ Protects One High-Speed I/O Line (Bidirection)
- ◆ Low Capacitance For High-Speed Interfaces
- ◆ Low Clamping And Operating Voltage
- ◆ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ◆ SOT-143 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 9.0 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

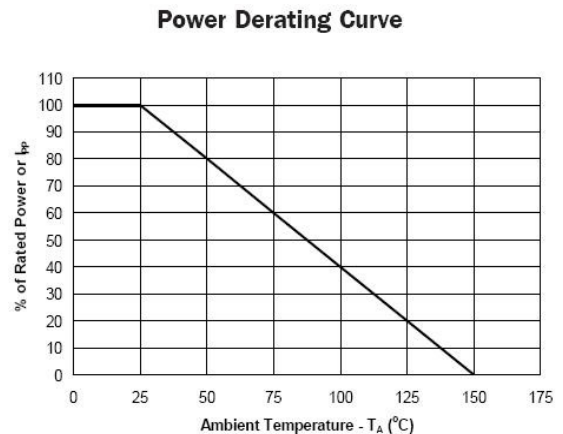
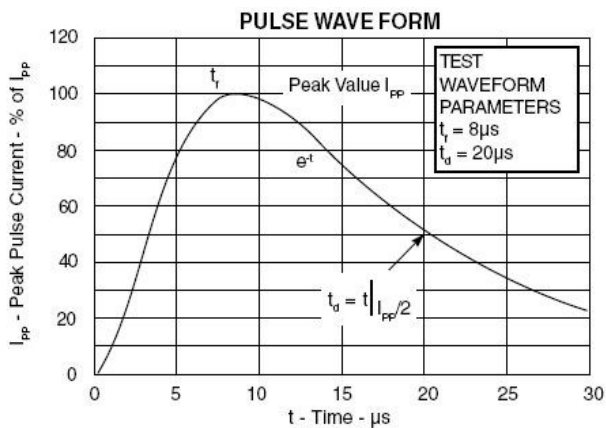


DEVICE CHARACTERISTICS

YSPLCxxC

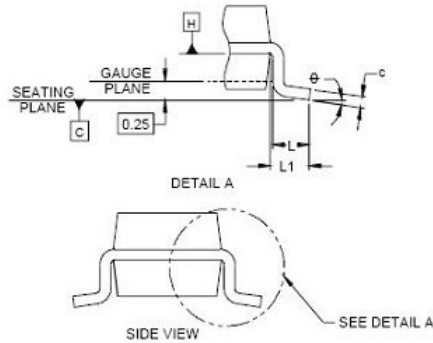
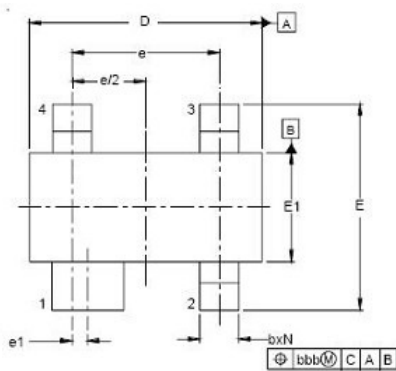
| MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified) | | | |
|---|------------------|---------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp=8/20µs waveform) | P _{PP} | 350 | Watts |
| Lead Soldering Temperature | T _L | 260 (10 sec.) | °C |
| Operating Temperature Range | 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.) |
| YSPLC33C | DT3 | 3.3 | 4 | 1 | 7 | 20 | 23 | 40 | 3 |
| YSPLC05C | DT5 | 5 | 6 | 1 | 9.8 | 24 | 22 | 5 | 3 |
| YSPLC08C | DT8 | 8 | 8.5 | 1 | 13.4 | 26 | 20 | 1 | 3 |
| YSPLC12C | DTA | 12 | 13.3 | 1 | 19 | 34 | 12 | 1 | 3 |
| YSPLC15C | DTB | 15 | 16.7 | 1 | 25 | 40 | 10 | 1 | 3 |
| YSPLC24C | DTD | 24 | 26.7 | 1 | 40 | 60 | 6 | 1 | 3 |
| YSPLC36C | DTE | 36 | 40 | 1 | 53 | 75 | 4 | 1 | 3 |

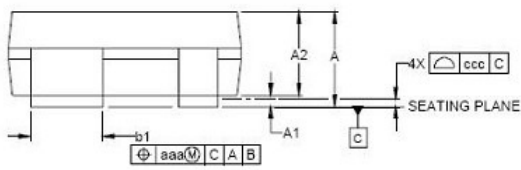


PACKAGE OUTLINE & DIMENSIONS

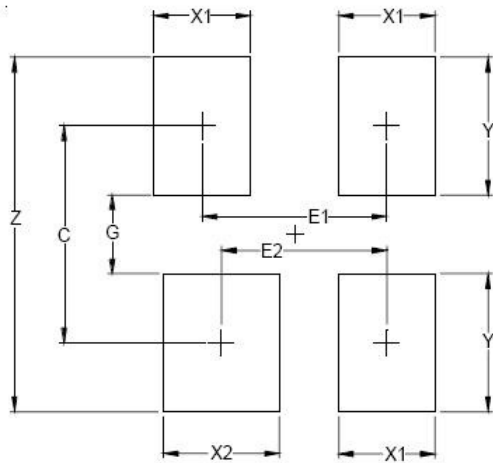
YSPLCxxC



| DIM | INCHES | | MILLIMETERS | |
|-----|---------------|-------|-------------|------|
| | MIN | NOM | MIN | NOM |
| A | .031 | -.048 | 0.80 | 1.22 |
| A1 | .000 | -.005 | 0.013 | 0.15 |
| A2 | .029 | .035 | .042 | 0.75 |
| b | .011 | -.020 | 0.30 | 0.51 |
| b1 | .029 | -.037 | 0.75 | 0.94 |
| c | .003 | -.005 | 0.08 | 0.20 |
| D | .110 | .114 | .120 | 2.80 |
| E | .082 | .093 | .104 | 2.10 |
| E1 | .047 | .051 | .055 | 1.20 |
| e | .075 1.92 BSC | | | |
| e1 | .008 0.20 BSC | | | |
| L | .015 | .020 | .024 | 0.40 |
| L1 | (0.54) | | | |
| N | 4 | | | |
| Phi | 0° | 8° | 0° | 8° |
| aaa | .000 | | 0.15 | |
| bbb | .008 | | 0.20 | |
| ccc | .004 | | 0.10 | |



* SOLDERING FOOTPRINT



| DIM | DIMENSIONS | |
|-----|------------|-------------|
| | INCHES | MILLIMETERS |
| C | (.087) | (2.20) |
| E1 | .076 | 1.92 |
| E2 | .068 | 1.72 |
| G | .031 | 0.80 |
| X1 | .039 | 1.00 |
| X2 | .047 | 1.20 |
| Y | .055 | 1.40 |
| Z | .141 | 3.60 |