# LC03-6

## Low Capacitance TVS Diode Array
## For High Speed Interface

## APPLICATIONS

- T1/E1 Line Cards
- T3/E3 and DS3 Interfaces
- STS-1 Interfaces
- ISDN S/T-Interfaces
- ISDN U-Interfaces
- 10/100 Ethernet

## IEC COMPATIBILITY

- Bellcore 1089 (Intra-Building) 100A (2/10μs)
- ITU K.20 $I_{PP}$=40A (5/310μs)
- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50 η s)
- IEC61000-4-5 (Lightning) 100A (8/20μs)

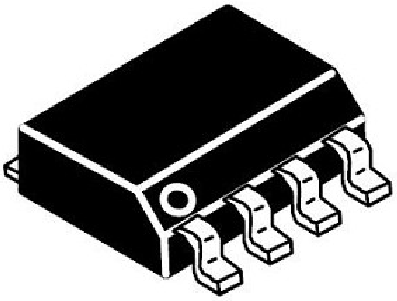
## FEATURES

- 2000 Watts Peak Pulse Power per Line (tp=8/20μs)
- Protects two lines in common and differential mode
- Low capacitance for high-speed interfaces
- Low clamping and operating voltage
- RoHS Compliant

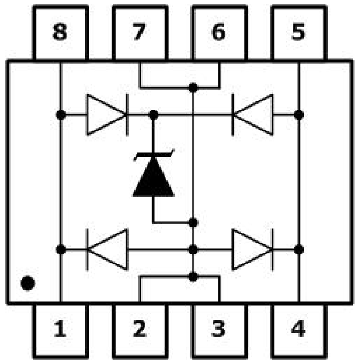
## MECHANICAL CHARACTERISTICS

- JEDEC SO-08 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 70 Millgrams (Approximate)
- Quantity Per Reel : 500pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

### SO-08



### PIN CONFIGURATION

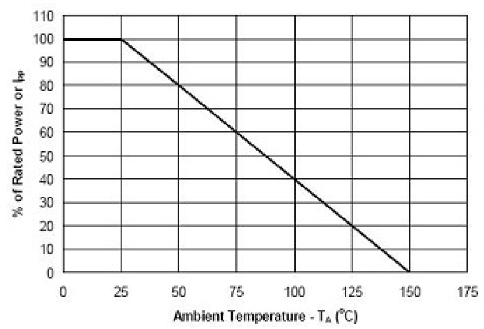


## DEVICE CHARACTERISTICS

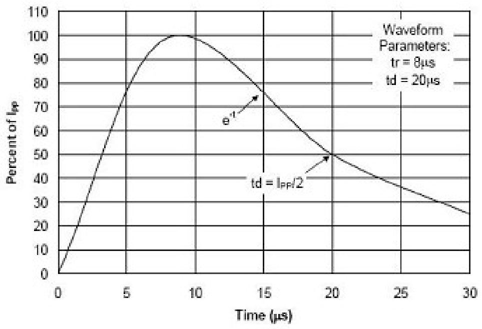
| MAXIMUM RATINGS (@ 25℃ Unless Otherwise Specified) | | | |
|---|---|---|---|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp=8/20μs waveform) | $P_{PP}$ | 2000 | Watts |
| Lead Soldering Temperature | $T_L$ | 260 (10 sec.) | ℃ |
| Operating Temperature Range | $T_J$ | -55 ~ 150 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 ~ 150 | ℃ |

| ELECTRICAL CHARACTERISTICS PER LINE (@ 25℃ Unless Otherwise Specified) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PART NUMBER | DEVICE MARKING | $V_{RWM}$ (V) (max.) | $V_B$ (V) (min.) | $I_T$ (mA) | $V_C$ @50A (max.) | $V_C$ (max.) | (@A) | $I_R$ (μA) (max.) | $C_T$ (pF) (max.) |
| LC03-6 | LC03-6 | 6 | 6.8 | 1 | 15 | 20 | 100 | 20 | 25 |

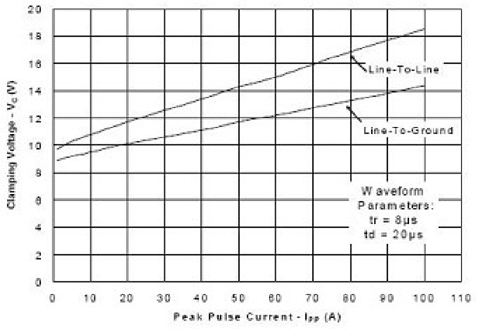
Power Derating Curve



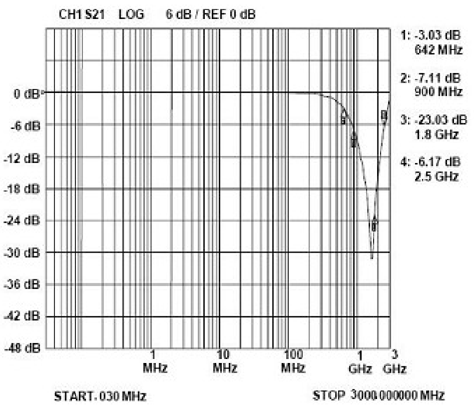
Pulse Waveform



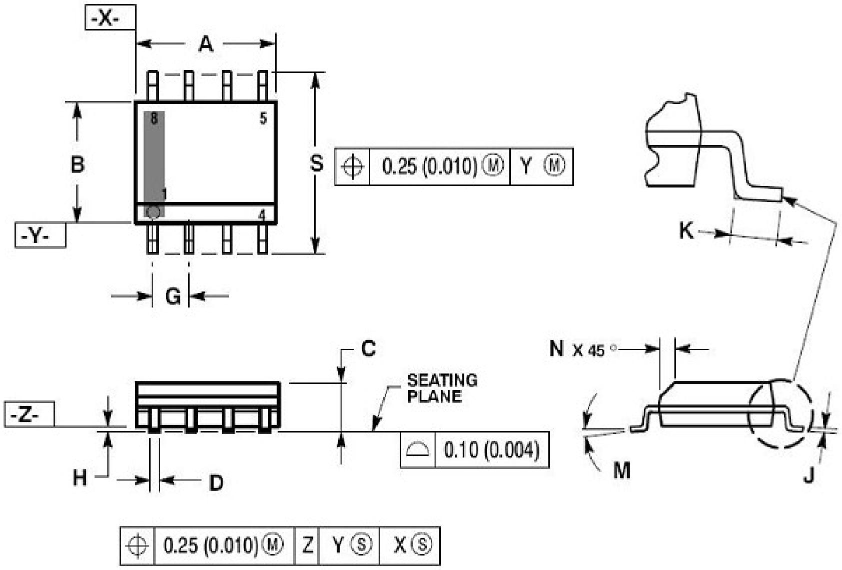
Clamping Voltage vs. Peak Pulse Current



Insertion Loss S21 - I/O to Gnd

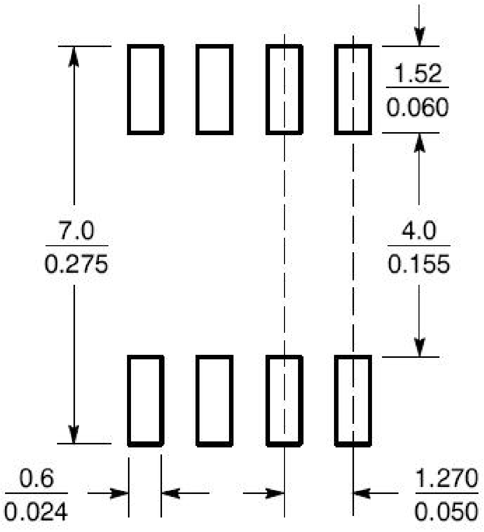


## SOP-08 PACKAGE OUTLINE & DIMENSIONS



| DIM | MILLIMETERS | | INCHES | |
|---|---|---|---|---|
| | MIN | MAX | MIN | MAX |
| A | 4.80 | 5.00 | 0.189 | 0.197 |
| B | 3.80 | 4.00 | 0.150 | 0.157 |
| C | 1.35 | 1.75 | 0.053 | 0.069 |
| D | 0.33 | 0.51 | 0.013 | 0.020 |
| G | 1.27 BSC | | 0.050 BSC | |
| H | 0.10 | 0.25 | 0.004 | 0.010 |
| J | 0.19 | 0.25 | 0.007 | 0.010 |
| K | 0.40 | 1.27 | 0.016 | 0.050 |
| M | 0 ° | 8 ° | 0 ° | 8 ° |
| N | 0.25 | 0.50 | 0.010 | 0.020 |
| S | 5.80 | 6.20 | 0.228 | 0.244 |

## * SOLDERING FOOTPRINT



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