

STEERING DIODE ARRAY

APPLICATIONS

- ✓ Notebook & Desktop Computers
- ✓ Set Top Box Interface
- ✓ Video Port Protection
- ✓ Handheld Electronics
- ✓ Personal Digital Assistant (PDA)
- ✓ Sensor Interface

IEC COMPATIBILITY (EN61000-4)

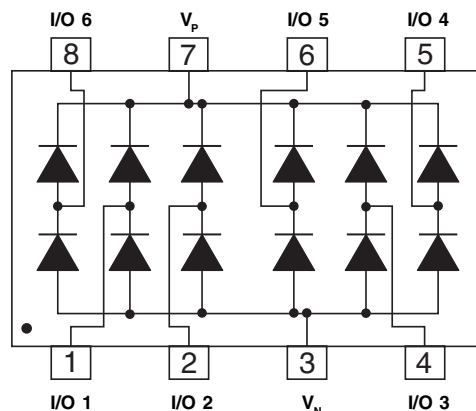
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

- ✓ ESD Protection > 40 kilovolts
- ✓ 350mW Continuous Power Dissipation
- ✓ Provides Six (6) Lines of Protection
- ✓ **LOW LEAKAGE CURRENT < 1.0μA**
- ✓ **LOW CAPACITANCE: 3pF Per Typical**
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-8
- ✓ Weight 70 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 12mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Part Number, Logo, Date Code & Pin One Defined By Dot on Top of Package

**PIN CONFIGURATION**

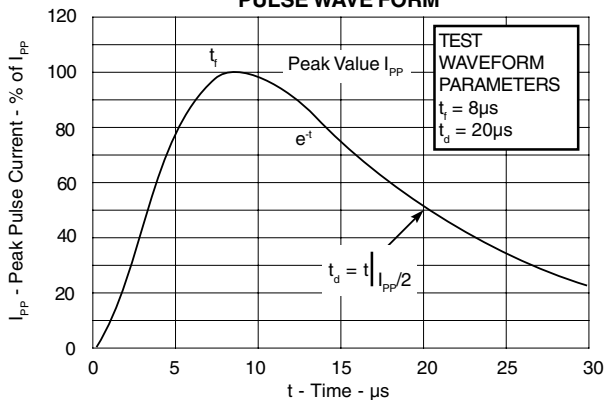
DEVICE CHARACTERISTICS

| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified | | | |
|---|-----------|----------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Operating Temperature | T_J | -55°C to 150°C | °C |
| Storage Temperature | T_{STG} | -55°C to 150°C | °C |
| Continuous Power Dissipation | P_{PC} | 350 | mW |

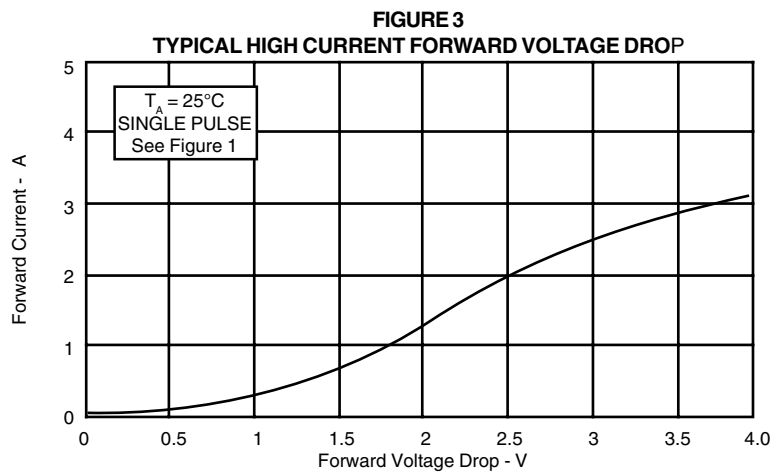
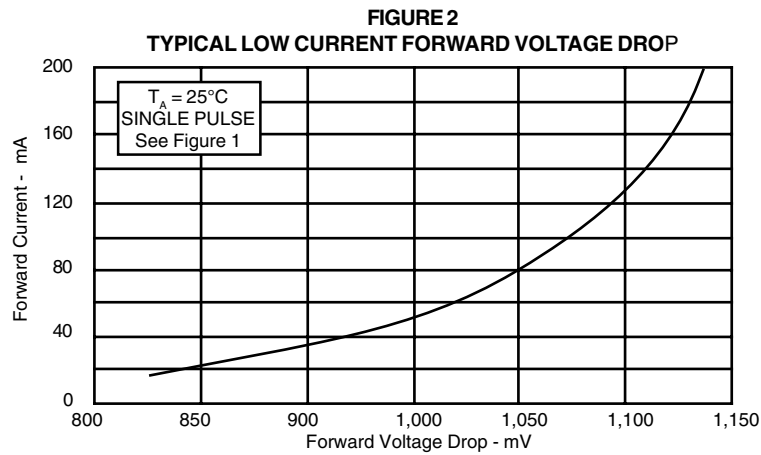
| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified | | | | | | |
|---|----------------|--|---|---|--|--|
| PART NUMBER | DEVICE MARKING | REPETITIVE PEAK REVERSE VOLTAGE (See Note 1) V_{RRM} VOLTS | MAXIMUM FORWARD VOLTAGE @ 20mA V_F VOLTS | MAXIMUM FORWARD PEAK PULSE CURRENT (See Figure 1) @ 8/20µs I_{FM} AMPS | MAXIMUM REVERSE LEAKAGE CURRENT V_{RRM} @ 5.5V I_R µA | TYPICAL CAPACITANCE @ 0V, 1MHz C_j pF |
| IO6LC | IO6LC | 30 | 0.95 | 3.5 | 0.1 | 3 |

Note 1: V_{RRM} is $+V_{CC}$ to pin 7, $-V_{EE}$ to pin 3.

FIGURE 1
PULSE WAVE FORM



GRAPHS



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

MOUNTING PAD

SO-8

| DIM | MILLIMETERS | | INCHES | |
|-----|-------------|----------|----------|----------|
| | MIN | MAX | MIN | MAX |
| A | 4.80 | 5.00 | 0.189 | 0.196 |
| B | 3.80 | 4.00 | 0.150 | 0.157 |
| C | 1.35 | 1.75 | 0.054 | 0.068 |
| D | 0.35 | 0.49 | 0.014 | 0.019 |
| F | 0.40 | 1.250 | 0.016 | 0.049 |
| G | 1.27 BSC | 1.27 BSC | 0.05 BSC | 0.05 BSC |
| J | 0.18 | 0.25 | 0.007 | 0.009 |
| K | 0.10 | 0.25 | 0.004 | 0.008 |
| P | 5.80 | 6.20 | 0.229 | 0.244 |
| R | 0.25 | 0.50 | 0.010 | 0.019 |

NOTES

- T - = Seating Plane and Datum Surface.
- Dimensions "A" and "B" are Datum.
- Dimensions "A" and "B" do not include mold protrusion.
- Maximum mold protrusion is 0.015" (0.380 mm) per side.
- Dimensioning and tolerances per ANSI Y14.5M, 1982.
- Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL/BULK ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix-T7 = 7 Inch Reel - 1,000 pieces per 12mm tape, i.e., IO6LC-T7.
- Suffix-T13 = 13 Inch Reel - 2,500 pieces per 12mm tape, i.e., IO6LC-T13.
- Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., IO6LC-LF-T7.
- No Suffix = Product Shipped in Tubes of 98 pcs per Tube.

Outline & Dimensions: Rev 1 - 11/01, 06009

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