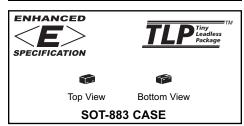


#### **CED2838E**

# **ENHANCED SPECIFICATION SURFACE MOUNT DUAL, COMMON CATHODE** SILICON SWITCHING DIODES



MARKING CODES: K **APPLICATIONS:** 

· High speed switching

MAXIMUM RATINGS: (T<sub>A</sub>=25°C)

# Semiconductor Corp.

#### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CED2838E type are dual common cathode silicon switching diodes manufactured by the epitaxial planar process and packaged in an epoxy molded TLP™ surface mount case. This device is ideal for high speed switching applications requiring extremely demanding size constraints.

#### **FEATURES:**

- Power Dissipation 100mW
- Low Package Profile, 0.5mm
- · Very low leakage current
- Small, TLP™ 1x0.6mm, SOT-883 Leadless Surface Mount Package

|  | SYMBOL                             |             | UNITS       |
|--|------------------------------------|-------------|-------------|
| Peak Repetitive Reverse Voltage            | $V_{RRM}$                          | 100         | V           |
| Average Forward Current                    | IO                                 | 200         | mA          |
| Peak Forward Current                       | I <sub>FM</sub>                    | 300         | mA          |
| Power Dissipation                          | $P_{D}$                            | 100         | mW (Note 1) |
| Operating and Storage Junction Temperature | T <sub>.I</sub> , T <sub>sta</sub> | -65 to +150 | °C          |

T<sub>J</sub>, T<sub>stg</sub>

**ELECTRICAL CHARACTERISTICS PER DIODE**: (T<sub>A</sub>=25°C unless otherwise noted)

| SYMBOL            | TEST CONDITIONS   | MIN | TYP | MAX | UNITS |
|-------------------|---|-----|-----|-----|-------|
| ♦ I <sub>R</sub>  | V <sub>R</sub> =70V   |     | 20  | 100 | nA    |
| ♦ BV <sub>R</sub> | I <sub>R</sub> =100μA   | 100 |     |     | V     |
| $\phi V_{F}$      | I <sub>F</sub> =10mA  |     | 0.7 | 0.9 | V     |
| ♦ V <sub>F</sub>  | I <sub>F</sub> =50mA  |     | 8.0 | 1.0 | V     |
| ♦ V <sub>F</sub>  | I <sub>F</sub> =100mA   |     | 0.9 | 1.1 | V     |
| ♦ c <sub>T</sub>  | V <sub>R</sub> =0, f=1 MHz                                    |     | 0.6 | 2.0 | pF    |
| t <sub>rr</sub>   | $I_{R}=I_{F}=10\text{mA}$ , $R_{I}=100\Omega$ , Rec. to 1.0mA |     | 3.0 | 4.0 | ns    |

#### ♦ Enhanced specification

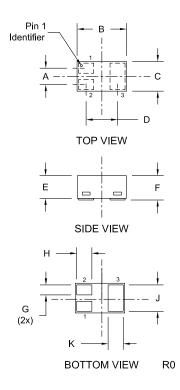
Notes: (1) FR-4 epoxy PC board with a mounting pad area of 10mm x 10mm



CED2838E

# ENHANCED SPECIFICATION SURFACE MOUNT DUAL, COMMON CATHODE SILICON SWITCHING DIODES

# **SOT-883 - MECHANICAL OUTLINE**



| DIMENSIONS |        |            |             |      |  |  |  |
|------------|--------|------------|-------------|------|--|--|--|
|            | INCHES |            | MILLIMETERS |      |  |  |  |
| SYMBOL     | MIN    | MAX        | MIN         | MAX  |  |  |  |
| Α          | 0.0    | 0.014 0.35 |             | 35   |  |  |  |
| В          | 0.037  | 0.041      | 0.95        | 1.05 |  |  |  |
| С          | 0.022  | 0.026      | 0.55        | 0.65 |  |  |  |
| D          | 0.026  |            | 0.65        |      |  |  |  |
| Е          | 0.016  | 0.024      | 0.40        | 0.60 |  |  |  |
| F          | 0.018  | 0.024      | 0.45        | 0.60 |  |  |  |
| G          | 0.004  | 0.008      | 0.10        | 0.20 |  |  |  |
| Н          | 0.008  | 0.012      | 0.20        | 0.30 |  |  |  |
| J          | 0.018  | 0.022      | 0.45        | 0.55 |  |  |  |
| K          | 0.008  | 0.012      | 0.20        | 0.30 |  |  |  |

SOT883 (REV:R0)

# **LEAD CODE:**

- 1) ANODE D1
- 2) ANODE D2
- 3) CATHODE D1, D2

