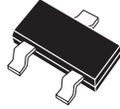


CMPD2836E
CMPD2838E

ENHANCED SPECIFICATION

**DUAL SILICON
SWITCHING DIODE**

ENHANCED
E
SPECIFICATION



SOT-23 CASE

CentralTM
Semiconductor Corp.

Description:

The Central Semiconductor CMPD2836E and CMPD2838E are Enhanced versions of the CMPD2836 and CMPD2838 High Speed Switching Diodes. These devices are manufactured by the epitaxial planar process, in an epoxy molded surface mount SOT-23 package, designed for high speed switching applications.

Enhanced Specifications:

- ◆ BV_R from 75V min to 120V min.
- ◆ V_F from 1.2V max to 1.0V max.

The following configurations are available:

CMPD2836E DUAL, COMMON ANODE
CMPD2838E DUAL, COMMON CATHODE

MARKING CODE: CA2E
MARKING CODE: CA6E

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

| | SYMBOL | | UNITS |
|-----------------------------------|----------------|-------------|--------------------|
| ◆ Peak Repetitive Reverse Voltage | V_{RRM} | 120 | V |
| Average Forward Current | I_O | 200 | mA |
| Peak Forward Current | I_{FM} | 300 | mA |
| Power Dissipation | P_D | 350 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JA} | 357 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

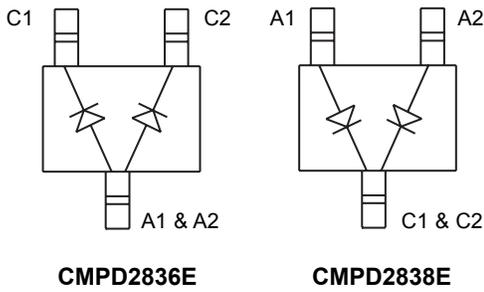
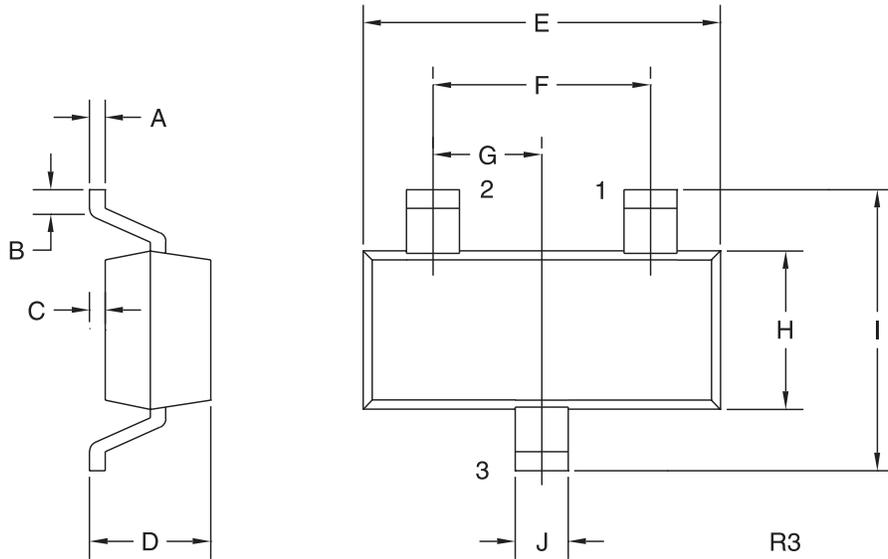
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|--|-----|------|------|-------|
| ◆ BV_R | $I_R=100\mu\text{A}$ | 120 | 150 | | V |
| ◆ I_R | $V_R=80\text{V}$ | | | 100 | nA |
| ◆ V_F | $I_F=10\text{mA}$ | | 0.72 | 0.85 | V |
| ◆ V_F | $I_F=50\text{mA}$ | | 0.84 | 0.95 | V |
| ◆ V_F | $I_F=100\text{mA}$ | | 0.92 | 1.0 | V |
| C_T | $V_R=0, f=1\text{ MHz}$ | | 1.5 | 4.0 | pF |
| t_{rr} | $I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$ | | | 4.0 | ns |

R0 (13-May 2002)

ENHANCED SPECIFICATION

**DUAL SILICON
SWITCHING DIODE**

SOT-23 CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.003 | 0.007 | 0.08 | 0.18 |
| B | 0.006 | - | 0.15 | - |
| C | - | 0.005 | - | 0.13 |
| D | 0.035 | 0.043 | 0.89 | 1.09 |
| E | 0.110 | 0.120 | 2.80 | 3.05 |
| F | 0.075 | | 1.90 | |
| G | 0.037 | | 0.95 | |
| H | 0.047 | 0.055 | 1.19 | 1.40 |
| I | 0.083 | 0.098 | 2.10 | 2.49 |
| J | 0.014 | 0.020 | 0.35 | 0.50 |

SOT-23 (REV: R3)