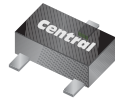


CMUD2836  
CMUD2838

**SURFACE MOUNT  
DUAL, HIGH SPEED  
SILICON SWITCHING DIODES**

**ULTRAmi™**



**SOT-523 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUD2836 and CMUD2838 types are ultra-high speed silicon switching diodes manufactured by the epitaxial planar process, in an epoxy molded ULTRAmi™ surface mount package, designed for high speed switching applications.

The following configurations are available:

**CMUD2836** DUAL, COMMON ANODE  
**CMUD2838** DUAL, COMMON CATHODE

**MARKING CODE: 2CA**  
**MARKING CODE: 6CA**

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

Peak Repetitive Reverse Voltage  
Average Forward Current  
Peak Forward Current  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_{RRM}$  75  
 $I_O$  200  
 $I_{FM}$  300  
 $P_D$  250  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  500

**UNITS**

V  
mA  
mA  
mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

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

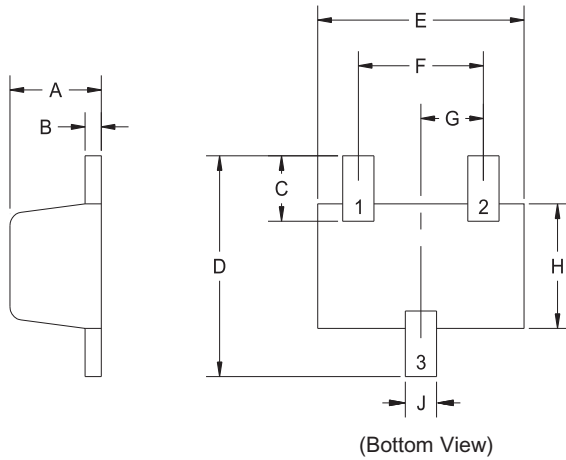
| SYMBOL   | TEST CONDITIONS   | MIN | TYP | MAX | UNITS |
|----------|---|-----|-----|-----|-------|
| $I_R$    | $V_R=50\text{V}$  |     |     | 100 | nA    |
| $BV_R$   | $I_R=100\mu\text{A}$                                      | 75  |     |     | V     |
| $V_F$    | $I_F=10\text{mA}$   |     |     | 1.0 | V     |
| $V_F$    | $I_F=50\text{mA}$   |     |     | 1.0 | V     |
| $V_F$    | $I_F=100\text{mA}$  |     |     | 1.2 | V     |
| $C_T$    | $V_R=0, f=1.0\text{MHz}$                                  |     | 1.5 | 4.0 | pF    |
| $t_{rr}$ | $I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ |     |     | 4.0 | ns    |

CMUD2836  
CMUD2838

SURFACE MOUNT  
DUAL, HIGH SPEED  
SILICON SWITCHING DIODES



SOT-523 CASE - MECHANICAL OUTLINE

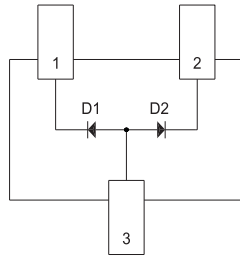


| SYMBOL | DIMENSIONS |       |             |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | 0.023      | 0.031 | 0.58        | 0.78 |
| B      | 0.002      | 0.008 | 0.04        | 0.20 |
| C      | 0.013      | 0.021 | 0.34        | 0.54 |
| D      | 0.059      | 0.067 | 1.50        | 1.70 |
| E      | 0.059      | 0.067 | 1.50        | 1.70 |
| F      | 0.035      | 0.043 | 0.90        | 1.10 |
| G      | 0.020      |       | 0.50        |      |
| H      | 0.031      | 0.039 | 0.78        | 0.98 |
| J      | 0.010      | 0.014 | 0.25        | 0.35 |

R2

SOT-523 (REV: R2)

PIN CONFIGURATIONS

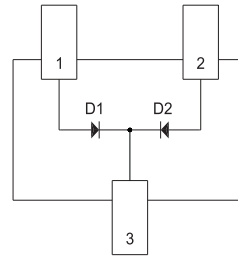


**CMUD2836**

**LEAD CODE:**

- 1) Cathode D1
- 2) Cathode D2
- 3) Anode D1, D2

**MARKING CODE: 2CA**



**CMUD2838**

**LEAD CODE:**

- 1) Anode D1
- 2) Anode D2
- 3) Cathode D1, D2

**MARKING CODE: 6CA**

R5 (9-February 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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