

CMXSTB200  
 CMXSTB300  
 CMXSTB400

**SURFACE MOUNT SILICON  
 FORWARD REFERENCE DIODE  
 (STABISTOR)**



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



**SOT-26 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXSTB200 Series types are multi-chip silicon diodes mounted in a surface mount SOT-26 case and designed for applications requiring controlled forward voltage characteristics such as voltage regulation, sensing, and comparing. This series is a surface mount alternative to the 1N4156, 1N4157, and 1N5179 leaded devices, respectively. Special selections of DC parameters including  $V_F$  at various test conditions are available on special order.

**MARKING CODES: CMXSTB200: CST2  
 CMXSTB300: CST3  
 CMXSTB400: CST4**

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

Power Dissipation  
 Operating and Storage Junction Temperature

**SYMBOL**

$P_D$   
 $T_J, T_{stg}$

350  
 -65 to +150

**UNITS**

mW  
 $^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS PER DEVICE - TESTED BETWEEN PIN 1 AND PIN3: ( $T_A=25^\circ\text{C}$ )**

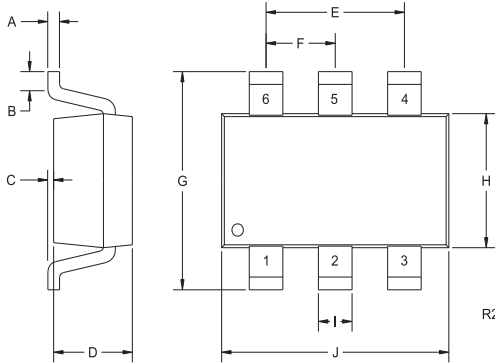
| SYMBOL | TEST CONDITIONS    | CMXSTB200 |      | CMXSTB300 |      | CMXSTB400 |      | UNITS         |
|--------|--------------------|-----------|------|-----------|------|-----------|------|---------------|
|        |                    | MIN       | MAX  | MIN       | MAX  | MIN       | MAX  |               |
| $I_R$  | $V_R=20\text{V}$   |           | 10   |           | 10   |           | 10   | $\mu\text{A}$ |
| $V_F$  | $I_F=1.0\text{mA}$ | 1.11      | 1.31 | 1.71      | 1.91 | 2.20      | 2.80 | V             |
| $V_F$  | $I_F=10\text{mA}$  | 1.38      | 1.58 | 2.08      | 2.28 | 2.60      | 3.20 | V             |
| $V_F$  | $I_F=100\text{mA}$ | 1.64      | 1.94 | 2.61      | 2.91 | 3.40      | 4.10 | V             |

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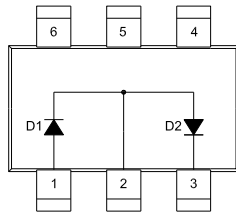
**SOT-26 CASE - MECHANICAL OUTLINE**



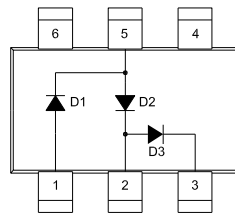
| SYMBOL | DIMENSIONS |       | DIMENSIONS  |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | 0.004      | 0.007 | 0.11        | 0.19 |
| B      | 0.016      | -     | 0.40        | -    |
| C      | -          | 0.004 | -           | 0.10 |
| D      | 0.039      | 0.047 | 1.00        | 1.20 |
| E      | 0.074      | 0.075 | 1.88        | 1.92 |
| F      | 0.037      | 0.038 | 0.93        | 0.97 |
| G      | 0.102      | 0.118 | 2.60        | 3.00 |
| H      | 0.059      | 0.067 | 1.50        | 1.70 |
| I      | 0.016      |       | 0.41        |      |
| J      | 0.110      | 0.118 | 2.80        | 3.00 |

SOT-26 (REV: R2)

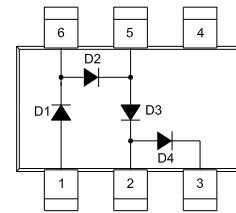
**PIN CONFIGURATIONS**



**CMXSTB200**  
**LEAD CODE:**  
1) Anode D1  
2) Cathode D1, Anode D2  
3) Cathode D2  
4) No Connection  
5) No Connection  
6) No Connection  
**MARKING CODE: CST2**

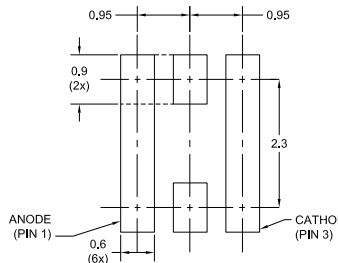


**CMXSTB300**  
**LEAD CODE:**  
1) Anode D1  
2) Cathode D2, Anode D3  
3) Cathode D3  
4) No Connection  
5) Anode D2, Cathode D1  
6) No Connection  
**MARKING CODE: CST3**

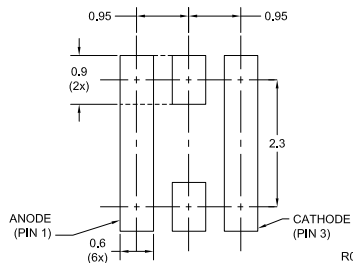


**CMXSTB400**  
**LEAD CODE:**  
1) Anode D1  
2) Cathode D3, Anode D4  
3) Cathode D4  
4) No Connection  
5) Anode D3, Cathode D2  
6) Cathode D1, Anode D2  
**MARKING CODE: CST4**

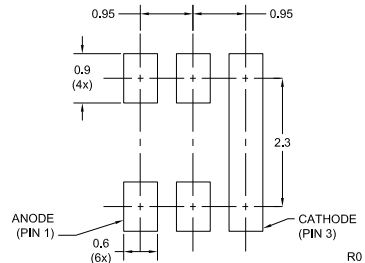
**SUGGESTED MOUNTING PADS (Dimensions in mm)**



**CMXSTB200**



**CMXSTB300**



**CMXSTB400**

R1 (12-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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

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

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