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.

FEATURED ENHANCED SPECIFICATIONS:
♦ BV_R from 75V min to 120V min.
♦ V_F from 1.2V max to 1.0V max.

MAXIMUM RATINGS: (T_A=25°C)

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>V_RRM</td>
<td>120 V</td>
</tr>
<tr>
<td>I_O</td>
<td>200 mA</td>
</tr>
<tr>
<td>I_FM</td>
<td>300 mA</td>
</tr>
<tr>
<td>P_D</td>
<td>350 mW</td>
</tr>
<tr>
<td>T_J</td>
<td>-65 to +150 °C</td>
</tr>
<tr>
<td>Θ_JA</td>
<td>357 °C/W</td>
</tr>
</tbody>
</table>

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>TEST CONDITIONS</th>
<th>MIN</th>
<th>TYP</th>
<th>MAX</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I_R</td>
<td>V_R=80V</td>
<td>120</td>
<td>150</td>
<td>100</td>
<td>nA</td>
</tr>
<tr>
<td>BVR</td>
<td>I_R=100µA</td>
<td>120</td>
<td>150</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>V_F</td>
<td>I_F=10mA</td>
<td>0.72</td>
<td>0.85</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>V_F</td>
<td>I_F=50mA</td>
<td>0.84</td>
<td>0.95</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>V_F</td>
<td>I_F=100mA</td>
<td>0.92</td>
<td>1.0</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>C_T</td>
<td>V_R=0, f=1.0MHz</td>
<td>1.5</td>
<td>4.0</td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>I_TR</td>
<td>I_R=I_F=10mA, R_L=100Ω, Rec. to 1.0mA</td>
<td>4.0</td>
<td></td>
<td>ns</td>
<td></td>
</tr>
</tbody>
</table>

Enhanced specification
CMPD2836E
CMPD2838E

ENHANCED SPECIFICATION
SURFACE MOUNT
DUAL, SILICON
SWITCHING DIODES

LEAD CODE:
1) Cathode D2
2) Cathode D1
3) Anode D1, D2

MARKING CODE: CA2E

SOT-23 CASE - MECHANICAL OUTLINE

DIMENSIONS

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

SOT-23 (REV: R3)

PIN CONFIGURATIONS

CMPD2836E
LEAD CODE:
1) Cathode D2
2) Cathode D1
3) Anode D1, D2

MARKING CODE: CA2E

CMPD2838E
LEAD CODE:
1) Anode D2
2) Anode D1
3) Cathode D1, D2

MARKING CODE: CA6E

R3 (25-January 2010)
OUTSTANDING SUPPORT AND SUPERIOR SERVICES

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

DESIGNER SUPPORT/SERVICES
Central’s applications engineering team is ready to discuss your design challenges. Just ask.
• Free quick ship samples (2nd 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

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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