DESCRIPTION:
The CENTRAL SEMICONDUCTOR CMKD2836 and CMKD2838 types consist of four high speed switching diodes arranged in two electrically isolated configurations (Common Anode and Common Cathode). These devices are manufactured by the epitaxial planar process, in an epoxy molded ULTRAmini™ surface mount package, designed for high speed switching applications.

The following configurations are available:

CMKD2836 DUAL PAIR, COMMON ANODE
CMKD2838 DUAL PAIR, COMMON CATHODE

MARKING CODE: K36
MARKING CODE: K38

MAXIMUM RATINGS: (TA=25°C)

<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>( V_{RRM} )</td>
<td>( V_R=50V )</td>
<td>75</td>
<td></td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>( I_O )</td>
<td>( I_R=100\mu A )</td>
<td></td>
<td>75</td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>( I_{FM} )</td>
<td>( I_F=50mA )</td>
<td></td>
<td>1.0</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>( P_D )</td>
<td>( I_F=100mA )</td>
<td></td>
<td>1.2</td>
<td></td>
<td>mW</td>
</tr>
<tr>
<td>( T_J, T_{stg} )</td>
<td>( V_R=0, f=1.0MHz )</td>
<td>-65 to +150</td>
<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>( \Theta_{JA} )</td>
<td>( I_R=10mA, R_L=100\Omega, \text{Rec. to } 1.0mA )</td>
<td>357</td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
</tbody>
</table>

ELECTRICAL CHARACTERISTICS PER DIODE: (TA=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>( V_R )</td>
<td>( V_R=50V )</td>
<td>100</td>
<td></td>
<td></td>
<td>nA</td>
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<tr>
<td>( BV_R )</td>
<td>( I_R=100\mu A )</td>
<td></td>
<td>75</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>( V_F )</td>
<td>( I_F=10mA )</td>
<td></td>
<td>1.0</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>( V_F )</td>
<td>( I_F=50mA )</td>
<td></td>
<td>1.0</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>( V_F )</td>
<td>( I_F=100mA )</td>
<td></td>
<td>1.2</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></td>
<td>4.0</td>
<td>pF</td>
</tr>
<tr>
<td>( t_{rr} )</td>
<td>( I_R=I_F=10mA, R_L=100\Omega, \text{Rec. to } 1.0mA )</td>
<td></td>
<td>4.0</td>
<td></td>
<td>ns</td>
</tr>
</tbody>
</table>
CMKD2836  
CMKD2838  
SURFACE MOUNT  
DUAL PAIR  
HIGH SPEED SILICON  
SWITCHING DIODES  

SOT-363 CASE - MECHANICAL OUTLINE  

DIMENSIONS  

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>INCHES</th>
<th>MILLIERS</th>
<th>MIN</th>
<th>MAX</th>
<th>MIN</th>
<th>MAX</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>0.004</td>
<td>0.010</td>
<td>0.10</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0.005</td>
<td>-</td>
<td>0.12</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.000</td>
<td>0.004</td>
<td>0.00</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>0.031</td>
<td>0.043</td>
<td>0.80</td>
<td>1.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>0.071</td>
<td>0.087</td>
<td>1.80</td>
<td>2.20</td>
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<td></td>
</tr>
<tr>
<td>F</td>
<td>0.051</td>
<td>-</td>
<td>1.30</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>0.026</td>
<td>-</td>
<td>0.65</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>0.075</td>
<td>0.091</td>
<td>1.90</td>
<td>2.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>0.043</td>
<td>0.055</td>
<td>1.10</td>
<td>1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>0.006</td>
<td>0.012</td>
<td>0.15</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
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</table>

MARKING CODE: K36  

CMKD2836  

LEAD CODE:  
1) Cathode D1  
2) Cathode D2  
3) Anode D3, D4  
4) Cathode D4  
5) Cathode D3  
6) Anode D1, D2  

MARKING CODE: K36  

CMKD2838  

LEAD CODE:  
1) Anode D1  
2) Anode D2  
3) Cathode D3, D4  
4) Anode D4  
5) Anode D3  
6) Cathode D1, D2  

MARKING CODE: K38  

www.centralsemi.com  
R4 (13-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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