### DESCRIPTION:
The CENTRAL SEMICONDUCTOR CBAT54 Series types are Silicon Schottky Diodes in an SOT-23 Surface Mount Package.

### MAXIMUM RATINGS: (\(T_A=25^\circ C\))

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(V_R)</td>
<td>30 V</td>
</tr>
<tr>
<td>(I_F)</td>
<td>200 mA</td>
</tr>
<tr>
<td>(I_{FRM})</td>
<td>300 mA</td>
</tr>
<tr>
<td>(I_{FSM})</td>
<td>600 mA</td>
</tr>
<tr>
<td>(P_D)</td>
<td>350 mW</td>
</tr>
<tr>
<td>(T_J, T_{stg})</td>
<td>-65 to +150 (^\circ)C</td>
</tr>
<tr>
<td>(\Theta_{JA})</td>
<td>357 (^\circ)C/W</td>
</tr>
</tbody>
</table>

### ELECTRICAL CHARACTERISTICS PER DIODE: (\(T_A=25^\circ C\) unless otherwise noted)

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>TEST CONDITIONS</th>
<th>MAX</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I_R)</td>
<td>(V_R=25V)</td>
<td>2.0</td>
<td>(\mu A)</td>
</tr>
<tr>
<td>(V_F)</td>
<td>(I_F=0.1mA)</td>
<td>240</td>
<td>mV</td>
</tr>
<tr>
<td>(V_F)</td>
<td>(I_F=1.0mA)</td>
<td>320</td>
<td>mV</td>
</tr>
<tr>
<td>(V_F)</td>
<td>(I_F=10mA)</td>
<td>400</td>
<td>mV</td>
</tr>
<tr>
<td>(V_F)</td>
<td>(I_F=30mA)</td>
<td>500</td>
<td>mV</td>
</tr>
<tr>
<td>(V_F)</td>
<td>(I_F=100mA)</td>
<td>800</td>
<td>mV</td>
</tr>
<tr>
<td>(C_d)</td>
<td>(V_R=1.0V, f=1.0MHz)</td>
<td>10</td>
<td>pF</td>
</tr>
<tr>
<td>(t_{rr})</td>
<td>(I_R=10mA, I_F=1.0mA, R_L=100\Omega)</td>
<td>5.0</td>
<td>ns</td>
</tr>
</tbody>
</table>

R1 (20-November 2009)
CBAT54
CBAT54A
CBAT54C
CBAT54S
SURFACE MOUNT
SILICON SCHOTTKY DIODES

SURFACE MOUNT SILICON SCHOTTKY DIODES

SOT-23 CASE - MECHANICAL OUTLINE

DIMENSIONS

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>INCHES</th>
<th>MILLIMETERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.003</td>
<td>0.07</td>
</tr>
<tr>
<td>B</td>
<td>0.006</td>
<td>0.15</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>0.005 - 0.13</td>
</tr>
<tr>
<td>D</td>
<td>0.035</td>
<td>0.89  1.09</td>
</tr>
<tr>
<td>E</td>
<td>0.119</td>
<td>2.99  3.03</td>
</tr>
<tr>
<td>F</td>
<td>0.076</td>
<td>1.93</td>
</tr>
<tr>
<td>G</td>
<td>0.037</td>
<td>0.95</td>
</tr>
<tr>
<td>H</td>
<td>0.047</td>
<td>1.19  1.40</td>
</tr>
<tr>
<td>I</td>
<td>0.083</td>
<td>2.00  2.49</td>
</tr>
<tr>
<td>J</td>
<td>0.014</td>
<td>0.35  0.50</td>
</tr>
</tbody>
</table>

LEAD CODE:
CBAT54
1) Anode
2) No Connection
3) Cathode
MARKING CODE: CL4

LEAD CODE:
CBAT54A
1) Cathode D2
2) Cathode D1
3) Anode D1, Anode D2
MARKING CODE: CL42

LEAD CODE:
CBAT54C
1) Anode D2
2) Anode D1
3) Cathode D1, Cathode D2
MARKING CODE: CL43

LEAD CODE:
CBAT54S
1) Anode D2
2) Cathode D1
3) Anode D1, Cathode D2
MARKING CODE: CL44

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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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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

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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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