

CBAT54  
CBAT54A  
CBAT54C  
CBAT54S

**SURFACE MOUNT  
SILICON SCHOTTKY DIODES**



**SOT-23 CASE**



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

**DESCRIPTION:**

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

CBAT54: SINGLE  
CBAT54A: DUAL, COMMON ANODE  
CBAT54C: DUAL, COMMON CATHODE  
CBAT54S: DUAL, IN SERIES

**MARKING CODE: CL4**  
**MARKING CODE: CL42**  
**MARKING CODE: CL43**  
**MARKING CODE: CL44**

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

Continuous Reverse Voltage  
Continuous Forward Current  
Peak Repetitive Forward Current  
Forward Surge Current,  $t_p=10\text{ms}$   
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_R$  30  
 $I_F$  200  
 $I_{FRM}$  300  
 $I_{FSM}$  600  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  357

**UNITS**

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

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

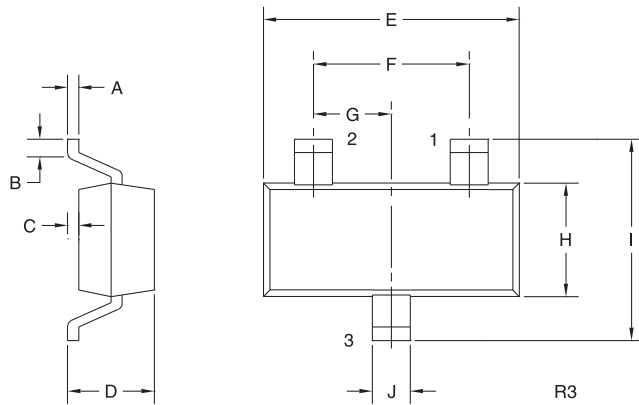
| SYMBOL   | TEST CONDITIONS                                              | MAX | UNITS         |
|----------|--------------------------------------------------------------|-----|---------------|
| $I_R$    | $V_R=25\text{V}$                                             | 2.0 | $\mu\text{A}$ |
| $V_F$    | $I_F=0.1\text{mA}$                                           | 240 | mV            |
| $V_F$    | $I_F=1.0\text{mA}$                                           | 320 | mV            |
| $V_F$    | $I_F=10\text{mA}$                                            | 400 | mV            |
| $V_F$    | $I_F=30\text{mA}$                                            | 500 | mV            |
| $V_F$    | $I_F=100\text{mA}$                                           | 800 | mV            |
| $C_d$    | $V_R=1.0\text{V}$ , $f=1.0\text{MHz}$                        | 10  | pF            |
| $t_{rr}$ | $I_F=I_R=10\text{mA}$ , $I_R=1.0\text{mA}$ , $R_L=100\Omega$ | 5.0 | ns            |

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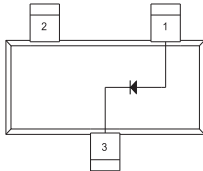


### SOT-23 CASE - MECHANICAL OUTLINE



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

SOT-23 (REV: R3)

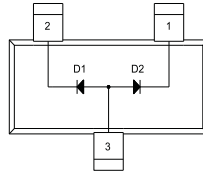


#### LEAD CODE:

**CBAT54**

- 1) Anode
- 2) No Connection
- 3) Cathode

**MARKING  
CODE: CL4**

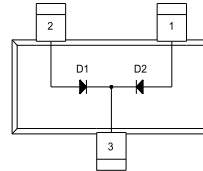


#### LEAD CODE:

**CBAT54A**

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

**MARKING  
CODE: CL42**

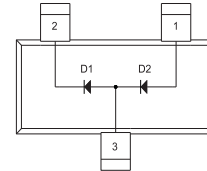


#### LEAD CODE:

**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**

R1 (20-November 2009)

## 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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