

CBAT54W  
 CBAT54AW  
 CBAT54CW  
 CBAT54SW

**SURFACE MOUNT  
 SILICON SCHOTTKY DIODES**

**SUPERmini™**



**SOT-323 CASE**

# Central™

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CBAT54W Series types are Silicon Schottky Diodes in an SOT-323 Surface Mount Package.

CBAT54W: SINGLE  
 CBAT54AW: DUAL, COMMON ANODE  
 CBAT54CW: DUAL, COMMON CATHODE  
 CBAT54SW: DUAL, IN SERIES

**MARKING CODE: C4L**  
**MARKING CODE: C4Z**  
**MARKING CODE: C4C**  
**MARKING CODE: C44**

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

|  | SYMBOL         |             | UNITS              |
|--|----------------|-------------|--------------------|
| Continuous Reverse Voltage               | $V_R$          | 30          | V                  |
| Continuous Forward Current               | $I_F$          | 200         | mA                 |
| Peak Repetitive Forward Current          | $I_{FRM}$      | 300         | mA                 |
| Forward Surge Current, $t_p=10\text{ms}$ | $I_{FSM}$      | 600         | mA                 |
| Power Dissipation                        | $P_D$          | 250         | mW                 |
| Operating and Storage                    |                |             |                    |
| Junction Temperature                     | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |
| Thermal Resistance                       | $\theta_{JA}$  | 500         | $^\circ\text{C/W}$ |

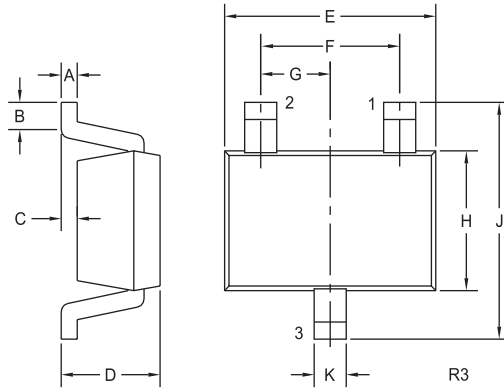
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| 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            |
| $t_{rr}$ | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | 5.0 | ns            |

R0 (24-February 2005)

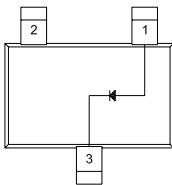
**SURFACE MOUNT  
SILICON SCHOTTKY DIODES**

**SOT-323 CASE - MECHANICAL OUTLINE**



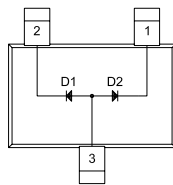
| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.002  | 0.008 | 0.05        | 0.20 |
| B      | 0.004  | -     | 0.10        | -    |
| C      | -      | 0.004 | -           | 0.10 |
| D      | 0.031  | 0.043 | 0.80        | 1.10 |
| E      | 0.071  | 0.087 | 1.80        | 2.20 |
| F      | 0.051  |       | 1.30        |      |
| G      | 0.026  |       | 0.65        |      |
| H      | 0.045  | 0.053 | 1.15        | 1.35 |
| J      | 0.079  | 0.087 | 2.00        | 2.20 |
| K      | 0.008  | 0.016 | 0.20        | 0.40 |

SOT-323 (REV: R3)



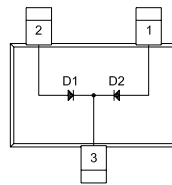
**LEAD CODE:**  
**CBAT54W**  
1) Anode  
2) No Connection  
3) Cathode

**MARKING  
CODE: C4L**



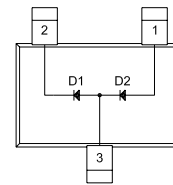
**LEAD CODE:**  
**CBAT54AW**  
1) Cathode D2  
2) Cathode D1  
3) Anode D1, Anode D2

**MARKING  
CODE: C42**



**LEAD CODE:**  
**CBAT54CW**  
1) Anode D2  
2) Anode D1  
3) Cathode D1, Cathode D2

**MARKING  
CODE: C4C**



**LEAD CODE:**  
**CBAT54SW**  
1) Anode D2  
2) Cathode D1  
3) Anode D1, Cathode D2

**MARKING  
CODE: C44**