



# THE DATASHEET OF CBAT54A TR



CBAT54  
 CBAT54A  
 CBAT54C  
 CBAT54S

**SURFACE MOUNT  
 SILICON SCHOTTKY DIODES**



[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.



**SOT-23 CASE**

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		UNITS
$V_R$	30	V
$I_F$	200	mA
$I_{FRM}$	300	mA
$I_{FSM}$	600	mA
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\Theta_{JA}$	357	$^\circ\text{C/W}$

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

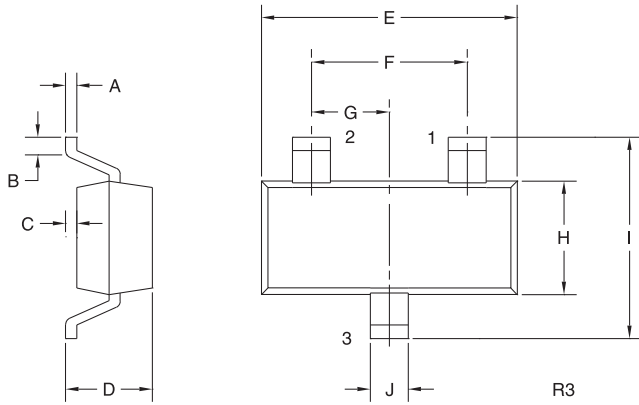
SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_R$	$V_R=25\text{V}$	2.0	$\mu\text{A}$
$V_F$	$I_F=0.1\text{mA}$	240	mV
$V_F$	$I_F=1.0\text{mA}$	320	mV
$V_F$	$I_F=10\text{mA}$	400	mV
$V_F$	$I_F=30\text{mA}$	500	mV
$V_F$	$I_F=100\text{mA}$	800	mV
$C_d$	$V_R=1.0\text{V}, f=1.0\text{MHz}$	10	pF
$t_{rr}$	$I_F=I_R=10\text{mA},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

CBAT54  
 CBAT54A  
 CBAT54C  
 CBAT54S

SURFACE MOUNT  
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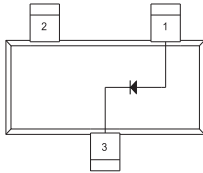


SOT-23 CASE - MECHANICAL OUTLINE



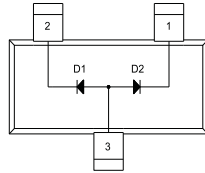
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)



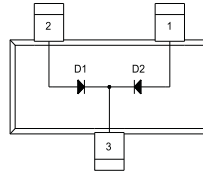
**LEAD CODE:**  
**CBAT54**  
 1) Anode  
 2) No Connection  
 3) Cathode

**MARKING CODE: CL4**



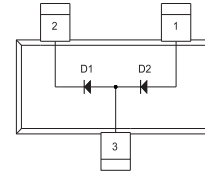
**LEAD CODE:**  
**CBAT54A**  
 1) Cathode D2  
 2) Cathode D1  
 3) Anode D1, Anode D2

**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

#### Corporate Headquarters & Customer Support Team

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- ✓ Global Sourcing Solution
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- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management