

SOT-23 Formed SMD Package

BAT54A; C; S

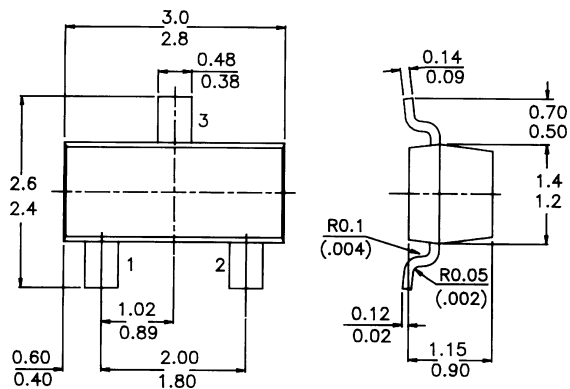
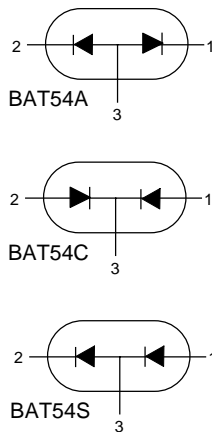
SCHOTTKY BARRIER DIODES

BAT54A dual diodes, common anode
BAT54C dual diodes, common cathode and
BAT54S dual diodes, in series

Marking

BAT54A – 42
BAT54C – 43
BAT54S – 44

PACKAGE OUTLINE DETAILS
ALL DIMENSIONS IN mm



ABSOLUTE MAXIMUM RATINGS (per diode)

Continuous reverse voltage	V_R	max.	30 V
Forward current (DC)	I_F	max.	200 mA
Forward voltage at $I_F = 10$ mA	V_F	<	400 mV
Reverse recovery time when switched from $I_F = 10$ mA to $I_R = 10$ mA; $R_L = 100 \Omega$; measured at $I_R = 1$ mA	t_{rr}	<	5 ns
Junction temperature	T_j	max.	125 °C

RATINGS (per diode) (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting values			
Repetitive peak reverse voltage	V_{RRM}	max.	30 V
Forward current (DC)	I_F	max.	200 mA
Repetitive peak forward current	I_{FRM}	max.	300 mA

BAT54A; C; S

Non-repetitive peak forward current

$t < 1 \text{ s}$

Storage temperature

Junction temperature

I_{FSM}	max.	600 mA
T_{stg}	-50 to +150 °C	
T_j	max.	125 °C

THERMAL RESISTANCE

From junction to ambient; mounted on a ceramic substrate of 10 mm × 8 mm × 0.6 mm

$R_{th\ j-a}$	=	430 K/W
---------------	---	---------

CHARACTERISTICS (per diode)

$T_{amb} = 25 \text{ °C}$ unless otherwise specified

Forward voltage

$I_F = 0.1 \text{ mA}$

$I_F = 1 \text{ mA}$

$I_F = 10 \text{ mA}$

$I_F = 30 \text{ mA}$

$I_F = 100 \text{ mA}$

V_F	max.	240 mV
V_F	max.	320 mV
V_F	max.	400 mV
V_F	max.	500 mV
	typ.	500 mV
V_F	max.	1000 mV

Reverse current

$V_R = 25 \text{ V}$

I_R	<	2 μA
-------	---	-----------------

Reverse breakdown voltage

$V_{(BR)R}$	>	30 V
-------------	---	------

Diode capacitance

$V_R = 1 \text{ V}; f = 1 \text{ MHz}$

C_d	<	15 pF
-------	---	-------

Reverse recovery time when switched from

$I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}; R_L = 100 \text{ }\Omega$;

measured at $I_R = 1 \text{ mA}$

t_{rr}	<	5 ns
----------	---	------

Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/ CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com