

SCHOTTKY BARRIER DIODES

BAT54A dual diodes, common anode

BAT54C dual diodes, common cathode and

BAT54S dual diodes, in series

Marking

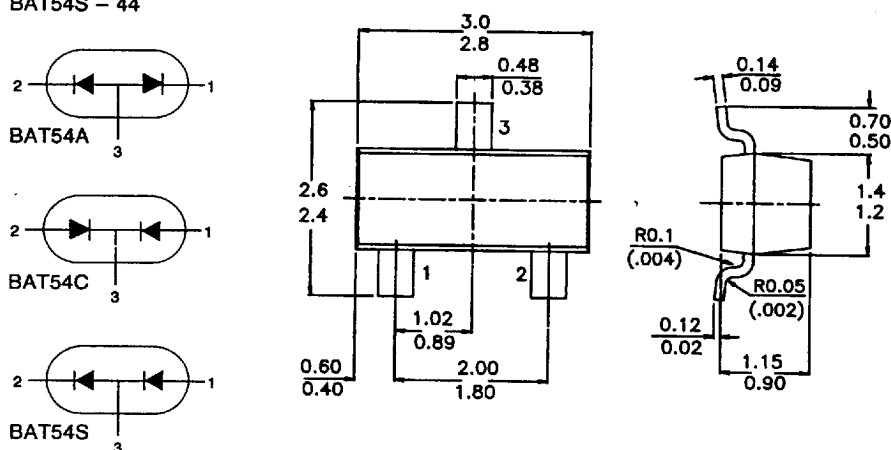
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PACKAGE OUTLINE DETAILS

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

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

$R_{th \text{ j-a}}$	=	430 K/W
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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
V_F	typ.	500 mV
V_F	max.	1000 mV

Reverse current

 $V_R = 25 \text{ V}$

I_R	<	2 μA
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Reverse breakdown voltage

$V_{(BR)R}$	>	30 V
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Diode capacitance

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

C_d	<	15 pF
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Reverse recovery time when switched from

 $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}; R_L = 100 \Omega$;measured at $I_R = 1 \text{ mA}$

t_{rr}	<	5 ns
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