

SCHOTTKY BARRIER DIODES

BAT54A dual diodes, common anode

BAT54C dual diodes, common cathode and

BAT54S dual diodes, in series

Marking

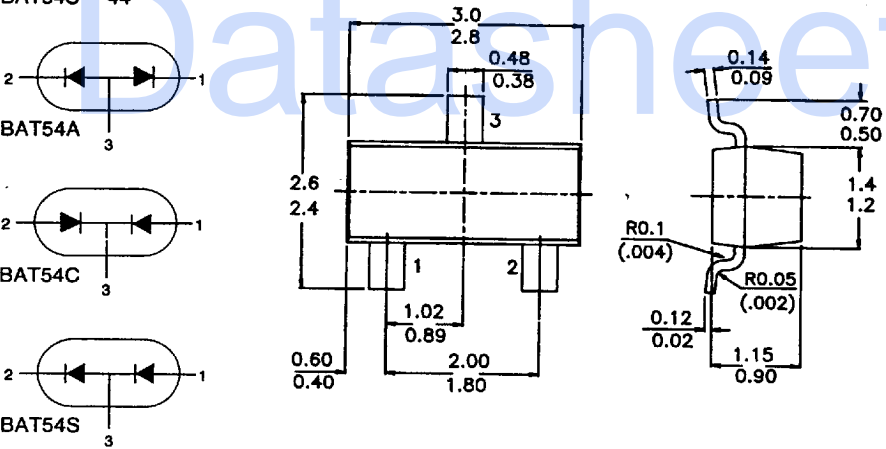
BAT54A - 42

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 |

Non-repetitive peak forward current

$t < 1 \text{ s}$

I_{FSM} max. 600 mA

Storage temperature

T_{stg} -50 to +150 °C

Junction temperature

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

$I_F = 0.1 \text{ mA}$

V_F max. 240 mV

$I_F = 1 \text{ mA}$

V_F max. 320 mV

$I_F = 10 \text{ mA}$

V_F max. 400 mV

$I_F = 30 \text{ mA}$

V_F max. 500 mV

$I_F = 100 \text{ mA}$

V_F typ. 500 mV

$I_F = 100 \text{ mA}$

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

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