BAT54-V, **BAT54A-V**, **BAT54C-V**, **BAT54S-V**

Vishay Semiconductors



Electrical Characteristics

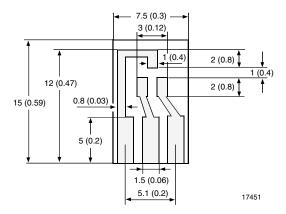
T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min.	Тур.	Max.	Unit
Reverse Breakdown voltage	$I_R = 100 \mu A \text{ (pulsed)}$	$V_{(BR)}$	30			V
Leakage current	Pulse test t_p < 300 μ s, δ < 2 % at V_R = 25 V	I _R			2	μΑ
Forward voltage	I_F = 0.1 mA, t_p < 300 μ s, δ < 2 %	V _F			240	mV
	$I_F = 1 \text{ mA}, t_p < 300 \mu s, \delta < 2 \%$	V _F			320	mV
	I_F = 10 mA, t_p < 300 μ s, δ < 2 %	V_{F}			400	mV
	$I_F = 30 \text{ mA}, t_p < 300 \mu\text{s}, \delta < 2 \%$	V_{F}			500	mV
	$I_F = 100 \text{ mA}, t_p < 300 \mu\text{s}, \delta < 2 \%$	V_{F}			800	mV
Diode capacitance	V _R = 1 V, f = 1 MHz	C _D			10	pF
Reverse recovery time	$I_F = 10 \text{ mA to } I_R = 10 \text{ mA},$ $I_R = 1 \text{ mA}, R_L = 100 \Omega$	t _{rr}			5	ns

Layout for R_{thJA} test

Thickness:

Fiberglass 1.5 mm (0.059 in.) Copper leads 0.3 mm (0.012 in.)



Typical Characteristics

T_{amb} = 25 °C, unless otherwise specified

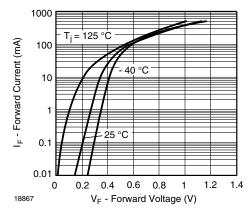


Figure 1. Typical Forward Voltage Forward Current vs. Various Temperatures

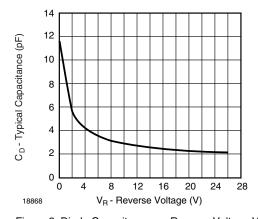


Figure 2. Diode Capacitance vs. Reverse Voltage \mathbf{V}_{R}



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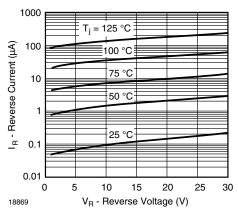
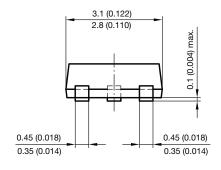
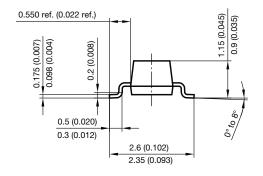
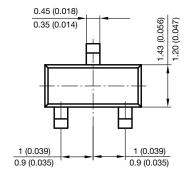


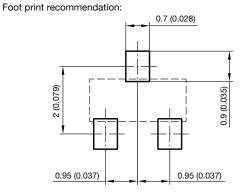
Figure 3. Typical Variation of Reverse Current vs. Various Temperatures

Package Dimensions in millimeters (inches): SOT-23









Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009

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