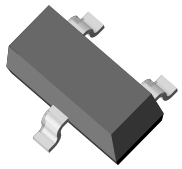
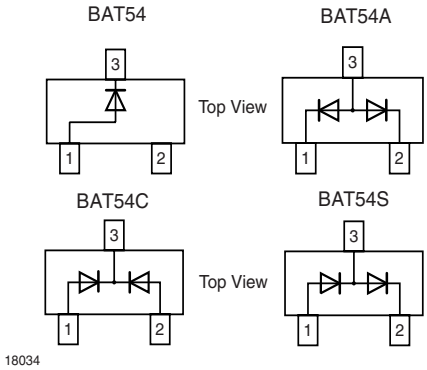
Schottky Diodes

Features

- These diodes feature very low turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.





Mechanical Data

Case: SOT-23 Plastic Package
Weight: approx. 8 mg
Marking:
BAT54-L4
BAT54A-L42
BAT54C-L43
BAT54S-L44
Packaging Codes/Options:
E8/10 K per 13 " reel (8 mm tape), 10 K/box
E9/3K per 7 " reel (8 mm tape), 3 K/box

Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	30	V
Forward continuous current		I_F	200[1)]	mA
Repetitive peak forward current		I_{FRM}	300[1)]	mA
Surge forward current current	t_p < 1 s	I_{FSM}	600[1)]	mA
Power dissipation		P_{tot}	230	mW

[1)] Device on fiberglass substrate, see layout on next page.

Maximum Thermal Resistance

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambiant air		$R_{\theta JA}$	430[1)]	°C/W
Junction temperature		$T_j = T_{stg}$	125	°C
Storage temperature range		T_S	- 65 to + 150	°C

[1)] Device on fiberglass substrate, see layout on next page.

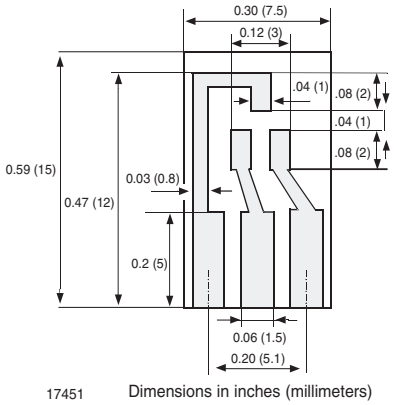
Electrical Characteristics

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

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse Breakdown voltage	I_R = 100 µA pulses	$V_{(BR)}$	30			V
Leakage current	Pulse test t_p < 300 µs, θ < 2 % at V_R = 25 V	I_R			2	µA
Forward voltage	I_F = 0.1 mA, t_p < 300 µs, θ < 2 %	V_F			240	mV
	I_F = 1 mA, t_p < 300 µs, θ < 2 %	V_F			320	mV
	I_F = 10 mA, t_p < 300 µs, θ < 2 %	V_F			400	mV
	I_F = 30 mA, t_p < 300 µs, θ < 2 %	V_F			500	mV
	I_F = 100 mA, t_p < 300 µs, θ < 2 %	V_F			1000	mV
Capacitance	V_R = 1 V, f = 1 MHz	C_{tot}			10	pF
Reverse recovery time	I_F = 10 mA through I_R = 10 mA to I_{rr} = 1mA, R_L = 100 Ω	t_{rr}			5	ns

Layout for $R_{\theta JA}$ test

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



Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

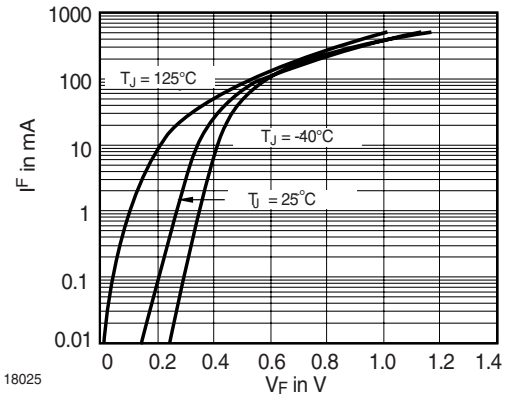


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

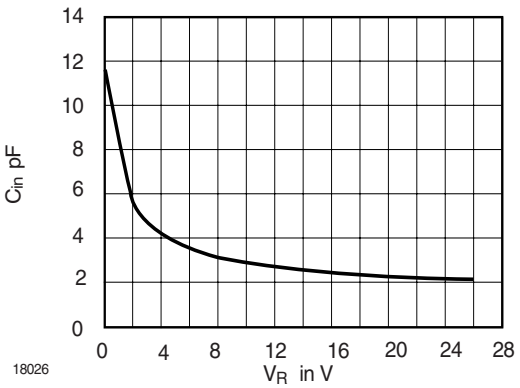


Figure 2. Typical Capacitance °C vs. Reverse Applied Voltage V_R

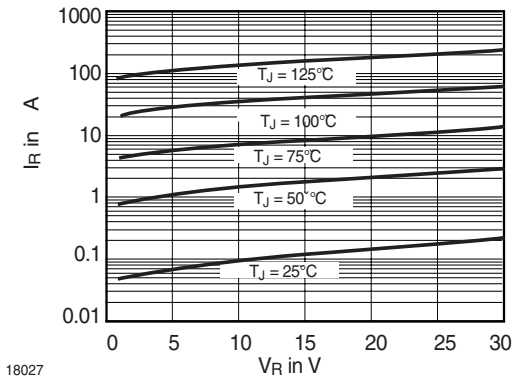
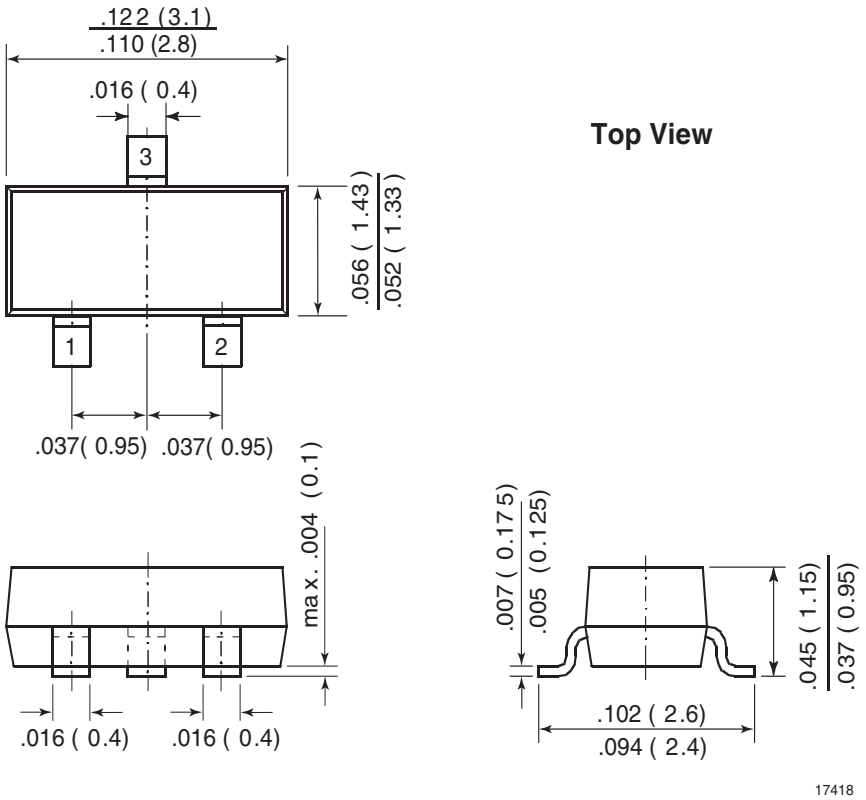
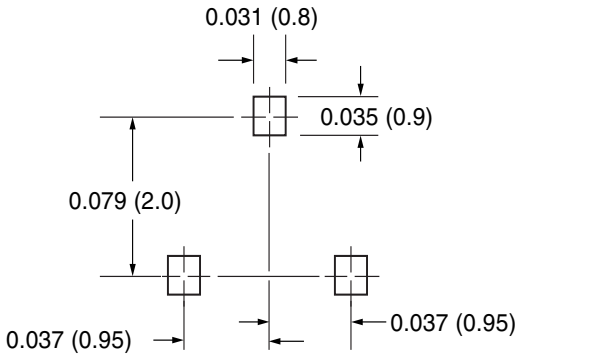


Figure 3. Typical Variation of Reverse Current at Various Temperatures

Package Dimensions in Inches (mm)



Mounting Pad Layout



Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operatingsystems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

Vishay Semiconductor GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany
Telephone: 49 (0)7131 67 2831, Fax number: 49 (0)7131 67 2423

ENTEGRECİ

Bu belge www.entegreci.com üzerinden sunulmaktadır.

Elektronik komponent tedarikinde Entegreci

Entegreci, Eskişehir merkezli, Türkiye geneline satış yapan bir elektronik komponent mağazasıdır. Entegreler (IC), mikrodenetleyiciler, transistörler, diyotlar, pasif elemanlar, konnektörler, modüller ve geliştirme kartları tek adetten seri üretim adetlerine kadar satılır. Ürün sayfalarında güncel stok durumunu, fiyatı ve datasheet bağlantısını bulabilirsiniz.

Parça koduyla arama

Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

www.entegreci.com

Ürün kategorileri

Entegreden kapasitöre tüm elektronik komponent kategorileri.

Kategorilere göz atın

Üreticiler

Aradığınız üreticinin ürünlerini tek sayfada inceleyin.

Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

Teklif isteyin

www.entegreci.com | **destek@entegreci.com** | **0850 305 90 34**

Entegreci is an online electronic components store based in Türkiye. Search by manufacturer part number to see stock, prices and datasheets for integrated circuits, microcontrollers, transistors, passive components and connectors, or request a quote for parts that are not listed.

Bu sayfa Entegreci tarafından eklenmiştir. Belgenin önceki sayfaları asıl yayıncısına aittir ve içeriği değiştirilmemiştir; en güncel sürüm için belgenin yayıncısına başvurun.