

BAV70

Vishay Telefunken

Dual Surface Mount Switching Diode

Features

- Fast switching speed
- Electrically identical to standard JEDEC 1N4148
- High conductance
- Surface mount package ideally suited for automatic insertion
- Common cathode



94 8550

Absolute Maximum Ratings

$T_j = 25^{\circ}C$						
Parameter	Test Conditions	Symbol	Value	Unit		
Non repetitive peak reverse voltage		V _{RM}	100	V		
Repetitive peak reverse voltage		V _{RRM}	70	V		
=Working peak reverse voltage =DC Blocking voltage		=V _{RWM} =V _R				
Peak forward surge current	t _p =1s	I _{FSM}	1	А		
	t _p =1µs	I _{FSM}	4.5	А		
Average forward current	half wave rectification with resistive load and $f \ge 50$ MHz, on ceramic sub- strate 10mmx8mmx0.7mm	I _{FAV}	150	mA		
Forward current	on ceramic substrate 10mmx8mmx0.7mm	Ι _Ε	250	mA		
Power dissipation	on ceramic substrate 10mmx8mmx0.7mm	P _{tot}	300	mW		
Junction and storage temperature range		T _j =T _{stg}	-55+150	°C		

Maximum Thermal Resistance

 $T_i = 25^{\circ}C$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on ceramic substrate 10mmx8mmx0.7mm	R _{thJA}	430	K/W

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Electrical Characteristics

$T_i = 25^{\circ}C$

Parameter	Test Conditions	Symbol	Min	Тур	Max	Unit
Forward voltage	I _F =1mA	V _F			715	mV
	I _F =10mA	V _F			855	mV
	I _F =50mA	V _F			1	V
	I _F =150mA	V _F			1.25	V
Reverse current	V _R =70V	I _R			2.5	μA
	V _R =70V, T _j =150°C	I _R			50	μA
	V _R =25V, T _j =150°C	I _R			30	μA
Diode capacitance	V _R =0, f=1MHz	CD			1.5	pF
Reverse recovery time	I_{F} =10mA to I_{R} =1mA, V_{R} =6V, R_{L} =100 Ω	t _{rr}			6	ns

Characteristics ($T_j = 25^{\circ}C$ unless otherwise specified)



Figure 1. Forward Current vs. Forward Voltage



Dimensions in mm





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technical drawings according to DIN specifications

14372

SOT-23				
Dim	Min	Max		
А	0.37	0.50		
В	1.19	1.40		
C	2.10	2.50		
D	0.89	1.05		
E	0.45	0.61		
G	1.78	2.05		
Η	2.79	3.05		
J	0.013	0.15		
Κ	0.89	1.10		
L	0.45	0.61		
M 0.076		0.130		
Al	l Dimensior	ns in mm		

Case: SOT23, plastic Terminals: Solderable per MIL–STD–202, Method 208 Polarity: see diagram Marking: KJH Approx. weight: 0.008 grams

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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 operating systems

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-Telefunken products for any unintended or unauthorized application, the buyer shall indemnify Vishay-Telefunken 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.

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