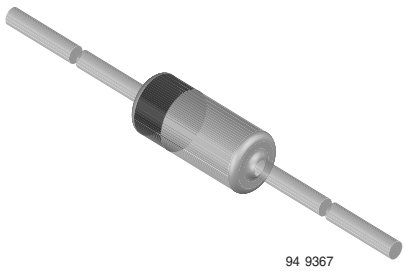
RF PIN Diodes

Features

- Wide frequency range 10 MHz to 1 GHz



Applications

Current controlled HF resistance in adjustable attenuators

Mechanical Data

Case: DO-35 Glass Case
Weight: approx. 125 mg
Packaging Codes/Options:

TR / 10 k per 13 " reel (52 mm tape), 50 k/box
TAP / 10 k per Ammopack (52 mm tape), 50 k/box

Parts Table

Part	Type differentiation	Ordering code	Remarks
BA479G	V_R = 30 V, Z_r > 5 kΩ	BA479G-TR or BA479G-TAP	Tape and Reel / Ammopack
BA479S	V_R = 30 V, Z_r > 9 kΩ	BA479S-TR or BA479S-TAP	Tape and Reel / Ammopack

Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Reverse voltage		V_R	30	V
Forward current		I_F	50	mA

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Junction ambient	l = 4 mm, T_L = constant	R_{thJA}	350	K/W
Junction temperature		T_j	125	°C
Storage temperature range		T_{stg}	- 55 to + 125	°C

Electrical Characteristics

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

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Forward voltage	I_F = 20 mA		V_F			1	V
Reverse current	V_R = 30 V		I_R			50	nA
Diode capacitance	f = 100 MHz, V_R = 0		C_D			0.5	pF
Differential forward resistance	f = 100 MHz, I_F = 1.5 mA		r_f			50	Ω

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Reverse impedance	f = 100 MHz, V_R = 0	BA479G	z_r	5			kΩ
		BA479S	z_r	9			kΩ
Minority carrier lifetime	I_F = 10 mA, I_R = 10 mA		τ		4		µs

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

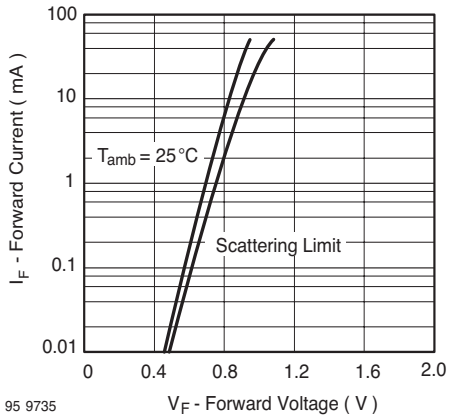


Fig. 1 Forward Current vs. Forward Voltage

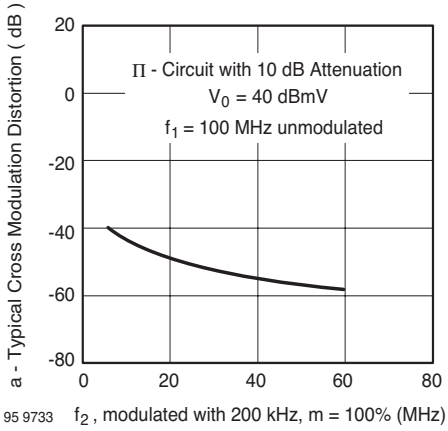


Fig. 3 Typ. Cross Modulation Distortion vs. Frequency f_2

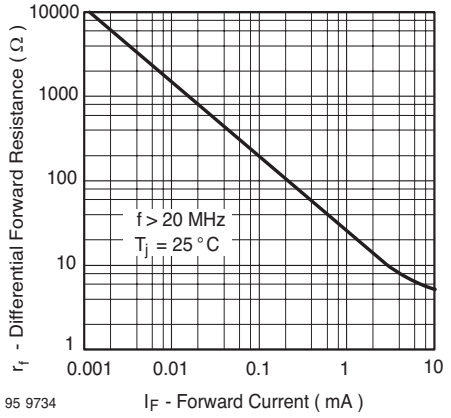
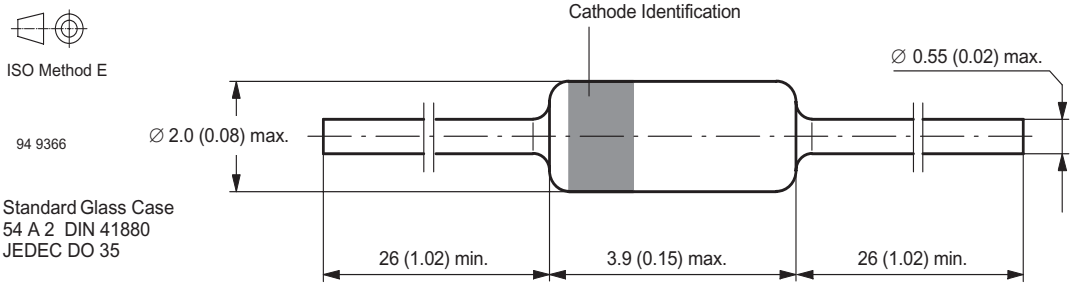


Fig. 2 Differential Forward Resistance vs. Forward Current

Package Dimensions in mm (Inches)



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.

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