

**Vishay Semiconductors** 



# **RF PIN Diodes - Dual Series**

### Features

- Wide frequency range 10 MHz to 1 GHz
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Find out more about Vishay's Automotive Grade Product requirements at: <u>www.vishay.com/applications</u>



## Applications

Current controlled HF resistance in adjustable attenuators

#### **Mechanical Data**

Case: SOT-23 Weight: approx. 8.1 mg Packaging codes/options: 18/10 k per 13" reel (8 mm tape), 10 k/box 08/3 k per 7" reel (8 mm tape), 15 k/box

#### Parts Table

Part	Ordering code	Type Marking	Remarks	
BA779-2-V-GH	BA779-2-V-GH-18 or BA779-2-V-GH-08	PH2	Tape and Reel	

## **Absolute Maximum Ratings**

T<sub>amb</sub> = 25 °C, unless otherwise specified

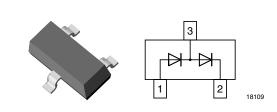
Parameter	Test condition	Symbol	Value	Unit
Reverse voltage		V <sub>R</sub>	30	V
Forward continuous current		١ <sub>F</sub>	50	mA

## **Thermal Characteristics**

T<sub>amb</sub> = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	on PC board 50 mm x 50 mm x 1.6 mm	R <sub>thJA</sub>	500	K/W
Junction temperature		Tj	125	°C
Storage temperature range		T <sub>stg</sub>	- 55 to + 125	°C

\*\* Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902



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## **Vishay Semiconductors**



## **Electrical Characteristics**

T<sub>amb</sub> = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min.	Тур.	Max.	Unit
Forward voltage	I <sub>F</sub> = 20 mA	V <sub>F</sub>			1000	mV
Reverse current	V <sub>R</sub> = 30 V	I <sub>R</sub>			50	nA
Diode capacitance	f = 100 MHz, V <sub>R</sub> = 0	CD			0.5	pF
Differential forward resistance	f = 100 MHz, I <sub>F</sub> = 1.5 mA	r <sub>f</sub>			50	Ω
Reverse impedance	f = 100 MHz, V <sub>R</sub> = 0	z <sub>r</sub>	5			kΩ
Minority carrier lifetime	l <sub>F</sub> = 10 mA, l <sub>R</sub> = 10 mA	τ		4		μs

## **Typical Characteristics**

T<sub>amb</sub> = 25 °C, unless otherwise specified

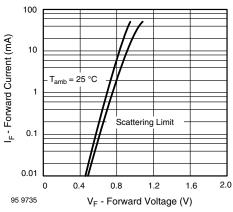


Figure 1. Forward Current vs. Forward Voltage

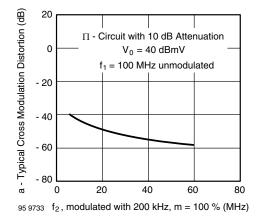


Figure 3. Typ. Cross Modulation Distortion vs. Frequency f<sub>2</sub>

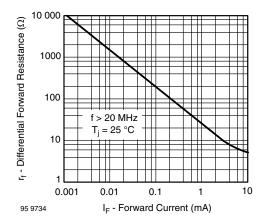


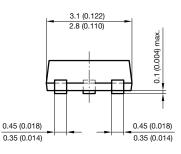
Figure 2. Differential Forward Resistance vs. Forward Current

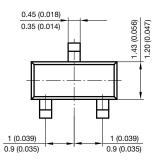


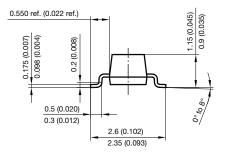
# BA779-2-V-GH

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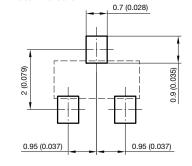
## Package Dimensions in millimeters (inches): SOT-23











Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009 17418



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