

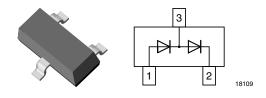
### **Vishay Semiconductors**

## **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: www.vishay.com/applications





### **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	Part Ordering code		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

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Parameter	Test condition	Symbol	Value	Unit
Reverse voltage		$V_{R}$	30	V
Forward continuous current		I <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		T <sub>j</sub>	125	°C
Storage temperature range		T <sub>stg</sub>	- 55 to + 125	°C

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

## **Vishay Semiconductors**



### **Electrical Characteristics**

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

Parameter	Test condition	Symbol	Min.	Тур.	Max.	Unit
Forward voltage	I <sub>F</sub> = 20 mA	$V_{F}$			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	C <sub>D</sub>			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	$I_F = 10 \text{ mA}, I_R = 10 \text{ mA}$	τ		4		μs

### **Typical Characteristics**

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

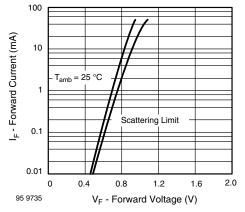


Figure 1. Forward Current vs. Forward Voltage

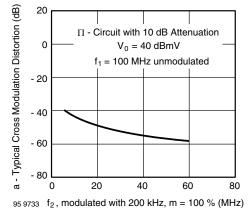


Figure 3. Typ. Cross Modulation Distortion vs. Frequency f<sub>2</sub>

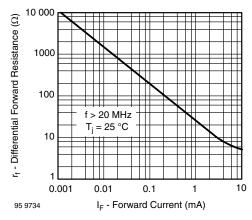
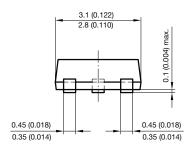


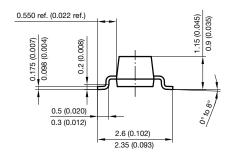
Figure 2. Differential Forward Resistance vs. Forward Current

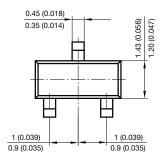


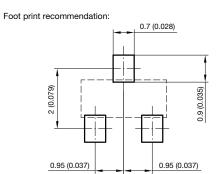
## **Vishay Semiconductors**

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









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# **Material Category Policy**

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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.