RF PIN Diodes

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

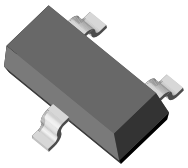
AUTOMOTIVE GRADE

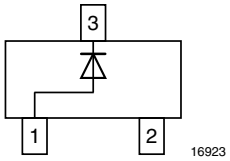
Pb-free

e3

RoHS COMPLIANT

GREEN (5-2008)**





Applications

- Current controlled HF resistance in adjustable attenuators

Mechanical Data

Case: SOT-23

Weight: approx. 8.1 mg

Packaging codes/options:

08/3 k per 7" reel (8 mm tape), 15 k/box

Parts Table

Part	Ordering code	Type Marking	Remarks
BA779-V-GH	BA779-V-GH-08	PH1	Tape and Reel

Absolute Maximum Ratings

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

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

Thermal Characteristics

T_{amb} = 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_{thJA}	500	K/W
Junction temperature		T_j	125	°C
Storage temperature range		T_{stg}	- 55 to + 125	°C

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

Electrical Characteristics

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

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F = 20 mA	V_F			1000	mV
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
Reverse impedance	f = 100 MHz, V_R = 0	z_r	5			kΩ
Minority carrier lifetime	I_F = 10 mA, I_R = 10 mA	τ		4		µs

Typical Characteristics

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

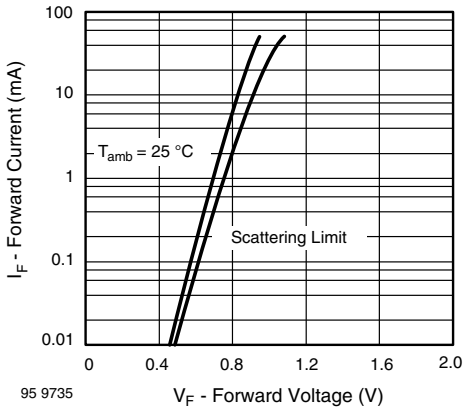


Figure 1. Forward Current vs. Forward Voltage

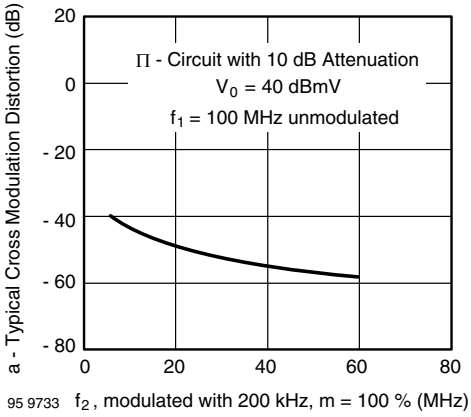


Figure 3. Typ. Cross Modulation Distortion vs. Frequency f_2

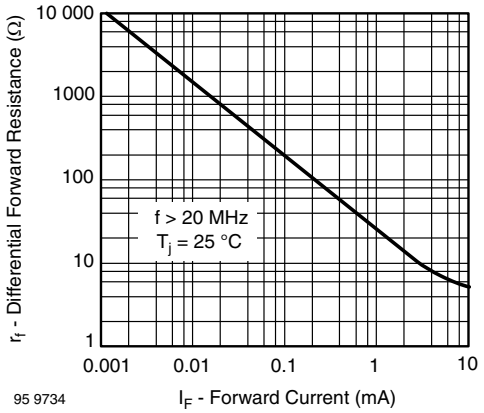
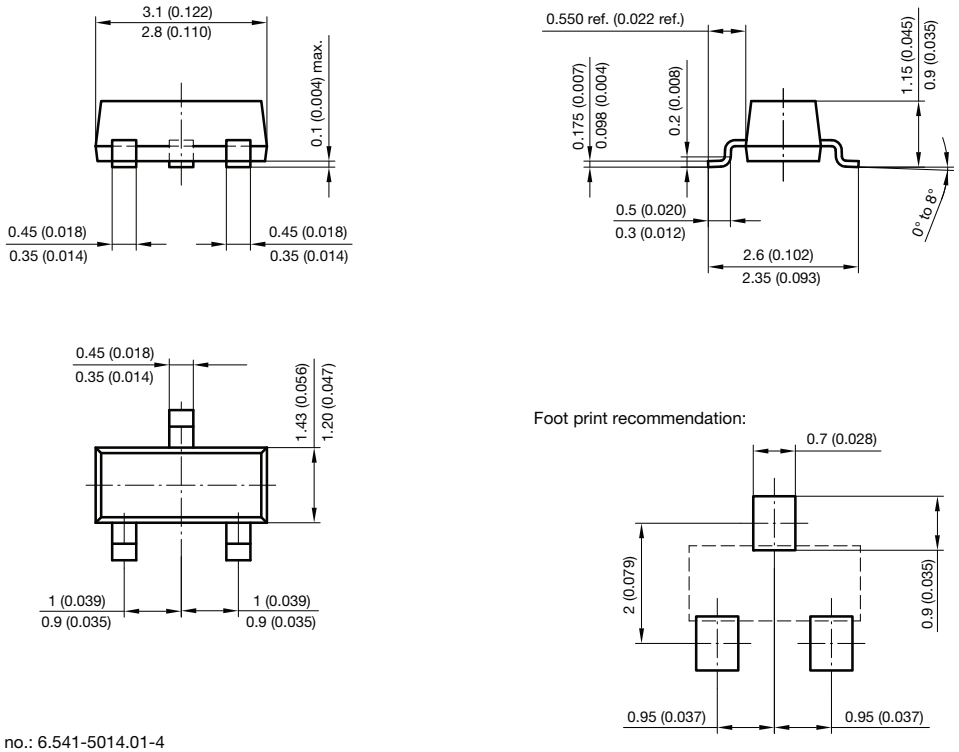


Figure 2. Differential Forward Resistance vs. Forward Current

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



Foot print recommendation:

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Rev. 8 - Date: 23.Sept.2009
17418

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