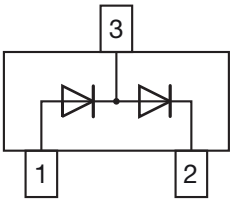
RF PIN Diodes - Dual Series



FEATURES

- Wide frequency range 10 MHz to 1 GHz
- AEC-Q101 qualified
- Base P/N-HG3 - green, automotive grade
- Material categorization:
  For definitions of compliance please see www.vishay.com/doc?99912

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:

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

PARTS TABLE

PART	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
S392D-G	S392D-HG3-08	PH4	Dual series	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PART	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 + 150	°C
Operating temperature range		T_{op}	- 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			0.05	µA
Diode capacitance	f = 100 MHz, V_R = 0 V		C_D			0.5	pF
Differential forward resistance	f = 100 MHz, I_F = 1.5 mA		r_f	40		60	Ω
Reverse impedance	f = 100 MHz, V_R = 0 V	S392D-G	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)

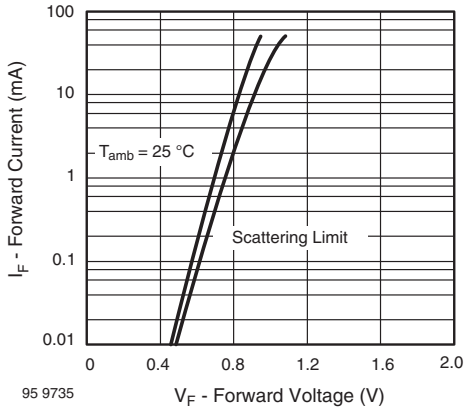


Fig. 1 - Forward Current vs. Forward Voltage

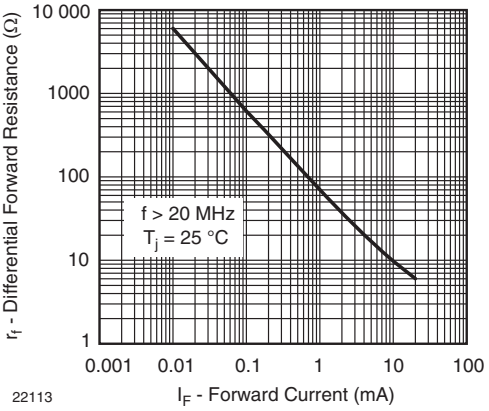


Fig. 2 - Differential Forward Resistance vs. Forward Current

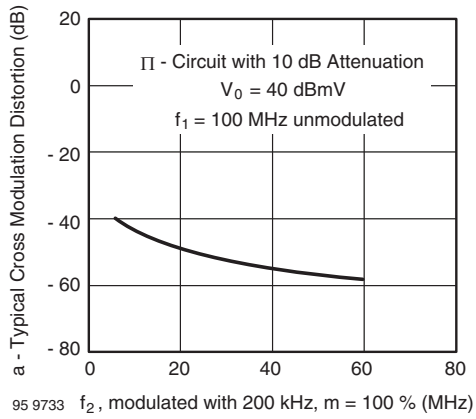
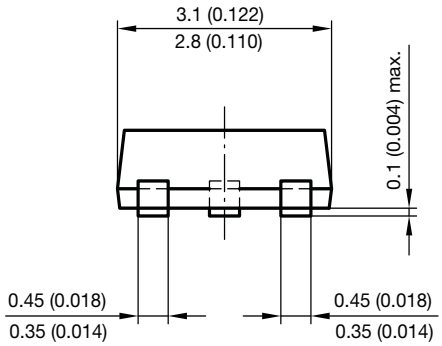
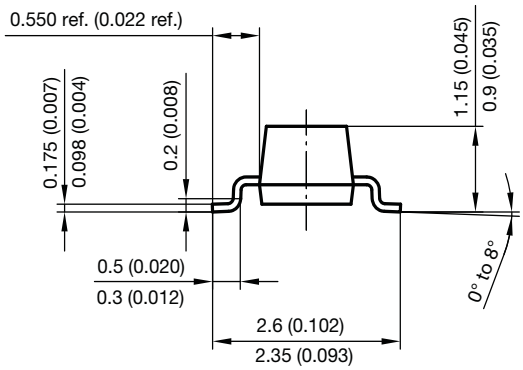
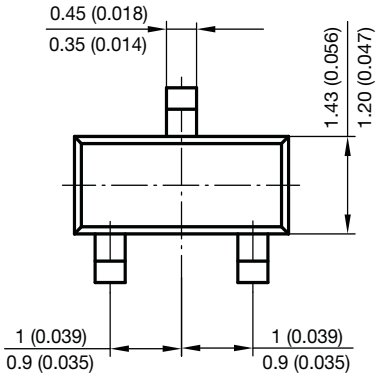


Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f_2

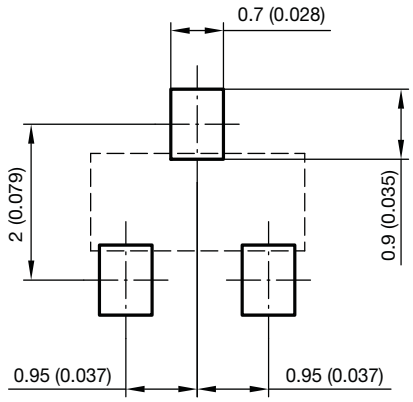
PACKAGE DIMENSIONS in millimeters (inches): **SOT-23**







Foot print recommendation:



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