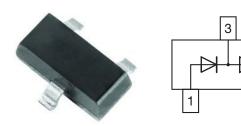


Vishay Semiconductors

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





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	ING CODE TYPE MARKING INTEL CONSTR		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		Tj	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	$V_R = 30 \text{ V}$		I _R			0.05	μA
Diode capacitance	$f = 100 \text{ MHz}, V_R = 0 \text{ V}$		CD			0.5	pF
Differential forward resistance	$f = 100 \text{ MHz}, I_F = 1.5 \text{ mA}$		r _f	40		60	Ω
Reverse impedance	$f = 100 \text{ MHz}, V_R = 0 \text{ V}$	S392D-G	Z _r	5			kΩ
Minority carrier lifetime	$I_F = 10 \text{ mA}, I_R = 10 \text{ mA}$		τ	•	4		μs

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TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

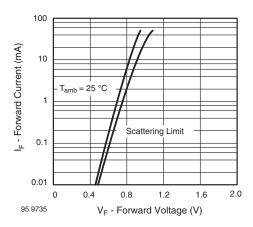


Fig. 1 - Forward Current vs. Forward Voltage

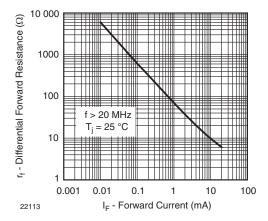


Fig. 2 - Differential Forward Resistance vs. Forward Current

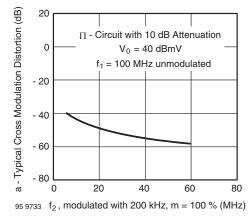
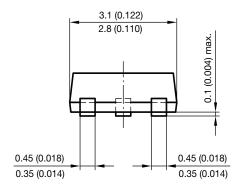


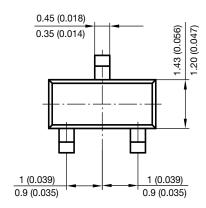
Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f₂



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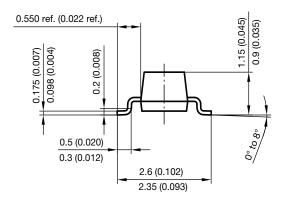
PACKAGE DIMENSIONS in millimeters (inches): SOT-23

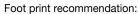


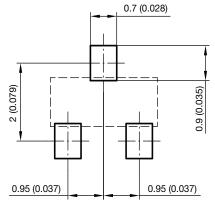


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Revision: 02-Oct-12 Document Number: 91000

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