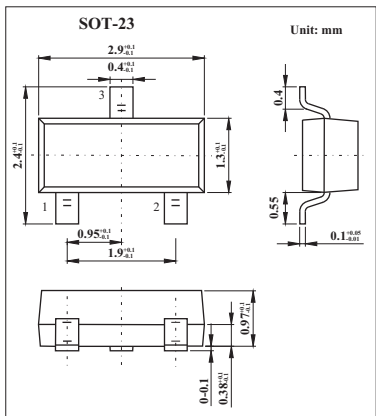
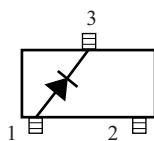


Surface Mount PIN Diodes

HSMP-3830

Features

- Low Current Switching
- Low Distortion Attenuating
- Ultra-Low Distortion Switching



Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Continuous reverse voltage	V_R	200	V
Forward current (1 ms Pulse)	I_F	1	A
Power Dissipation @ $T_A = 25^{\circ}\text{C}$	P_{tot}	250	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150	$^{\circ}\text{C}$

Electrical Characteristics $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Reverse voltage	V_R	$I_R = 10\text{ mA}$	200			V
Series Resistance	R_s	$I_F = 100\text{mA}, f = 100\text{MHz}$			1.5	Ω
Total Capacitance	C_T	$V_R = 50\text{V}, f = 1\text{MHz}$			0.3	pF

Marking

Marking	K0
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HSMP-3830

■ Typical Characteristics

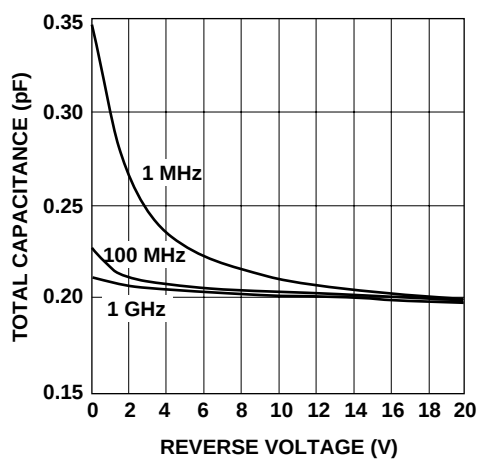


Figure 1. RF Capacitance vs. Reverse Bias

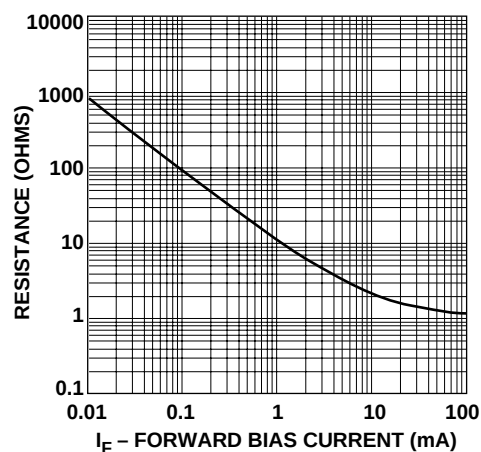


Figure 2. Resistance at 25°C vs. Forward Bias Current.

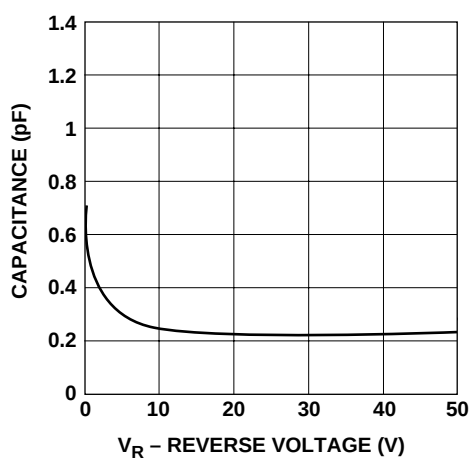


Figure 3. Capacitance vs. Reverse Voltage.

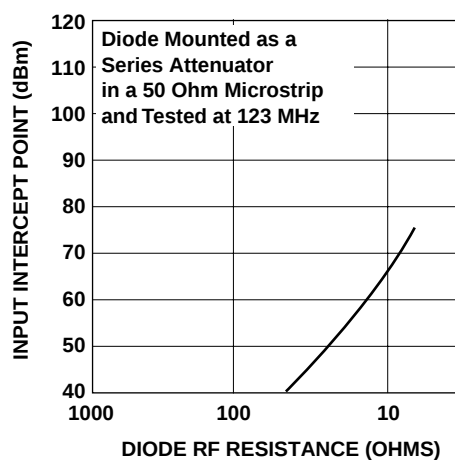


Figure 4. 2nd Harmonic Input Intercept Point vs. Diode RF Resistance for Attenuator Diodes.

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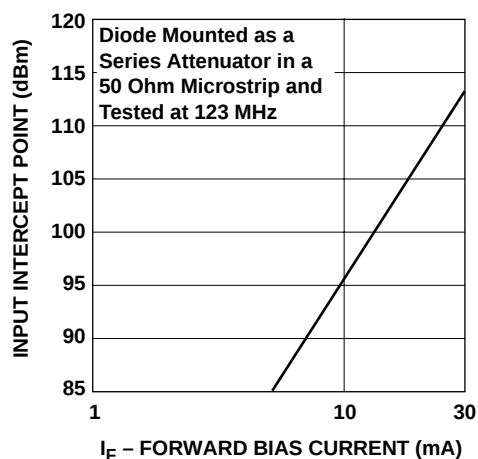


Figure 5. 2nd Harmonic Input Intercept Point vs. Forward Bias Current for Switch Diodes.

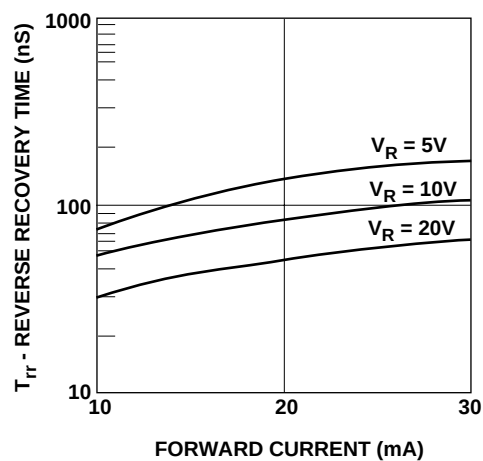


Figure 6. Reverse Recovery Time vs. Forward Current for Various Reverse Voltage.

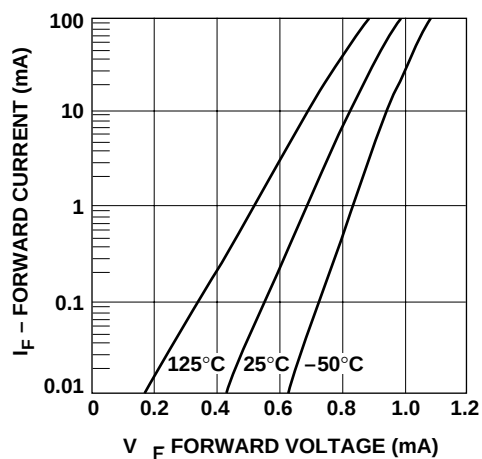


Figure 7. Forward Current vs. Forward Voltage.