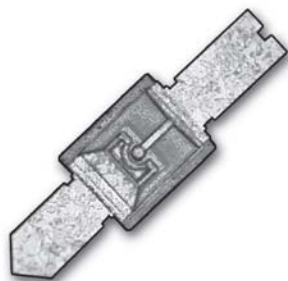


Mesa Beam Lead PIN Diodes



Description

Metelics' Beam Lead PIN diodes provide low microwave capacitance and fast switching performance. They are ideal for use in broadband high speed multi-throw switches as well as phase shifters, modulators and attenuators.

Features

- Fast Switching
- Rugged Construction 5 gram Pulls typ.
- Oxide/ Polyimide Double Passivation

Electrical Specifications, $T_A = 25^\circ\text{C}$

Part Number	V_{BR} V	R_s Ω		C_j pF		τ ns	t_{tr} ns
	MIN	TYP	MAX	TYP	MAX	TYP	TYP
MBP1030-B11	100	5.5	6.5	.020	.025	35	4.9
MBP1033-B11	100	4.0	5.0	.025	.030	40	4.8
MBP1034-B11	100	6.0	7.0	.025	.030	25	5.5
MBP1035-B11	60	3.5	4.0	.030	.040	30	2.5
MBP1036-B11	60	2.5	3.0	.040	.050	40	2.4
MBP2030-B11	60	6.0	7.0	.023	.025	20	4.1
MBP2034-B11	60	5.0	6.0	.026	.030	20	3.2
Test Conditions	$I_R = 10 \mu\text{A}$	$I_F = 10\text{mA}$ $f = 1\text{-}3.0 \text{ GHz}$		$V_R = 10 \text{ V}$ $f = 2\text{-}18 \text{ GHz}$ swept		$I_F = 10 \text{ mA}$ $I_R = 6 \text{ mA}$	$I_F = 10 \text{ mA}$ $V_R = 10 \text{ V}$

Absolute Maximum Ratings

Parameters	Limit
Total Power Dissipation	250 mW at $+25^\circ\text{C}$ Derate Linearly to zero at $+175^\circ\text{C}$
Operation Temperature	-65°C to $+175^\circ\text{C}$
Storage Temperature	-65°C to $+200^\circ\text{C}$
Terminal Strength	3 Grams Minimum



Figure 1.

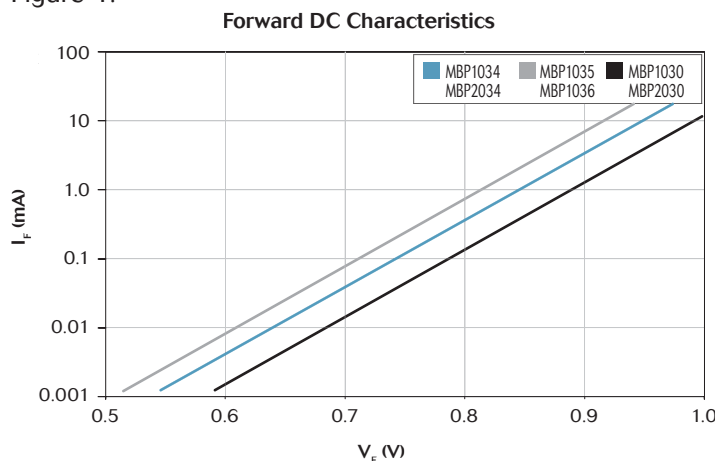


Figure 2.

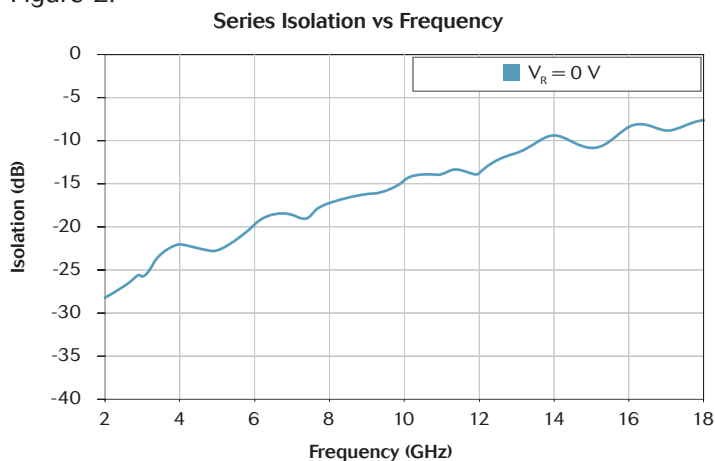


Figure 3.

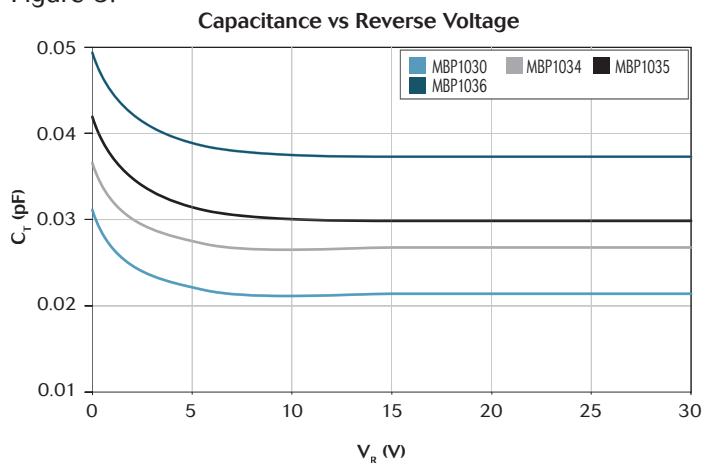


Figure 4.

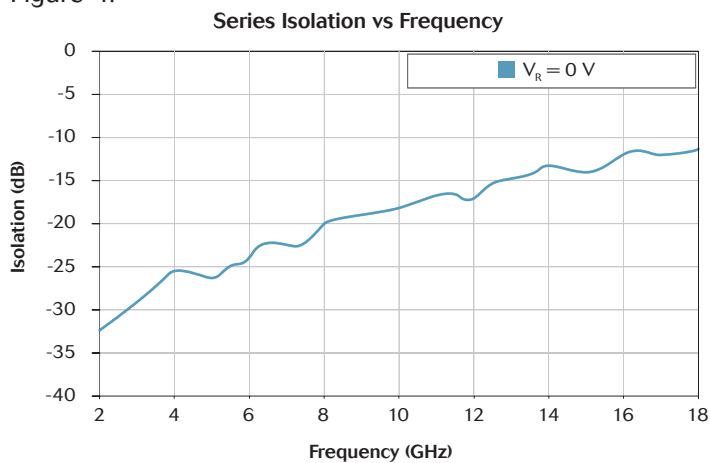


Figure 5.

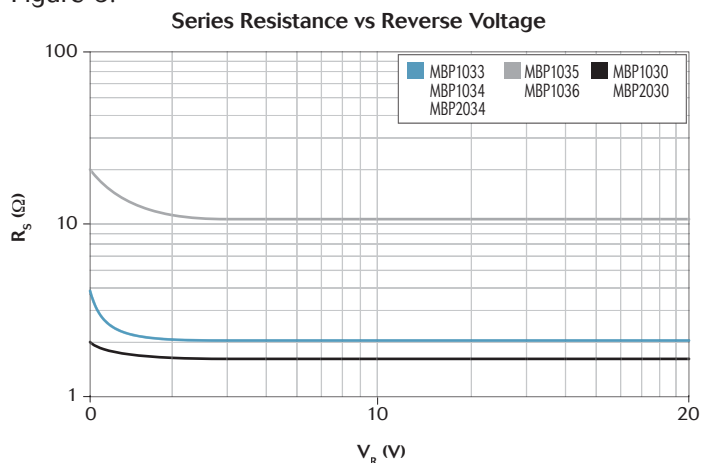
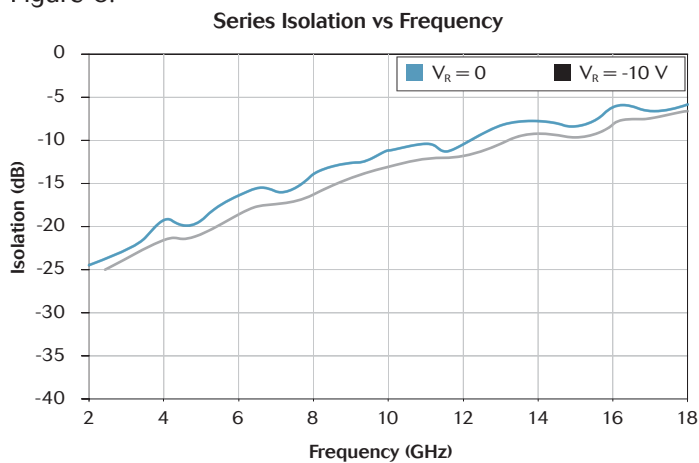


Figure 6.



Mesa Beam Lead PIN Diodes



Typical Performance, $T_A = 25^\circ\text{C}$

Figure 7.

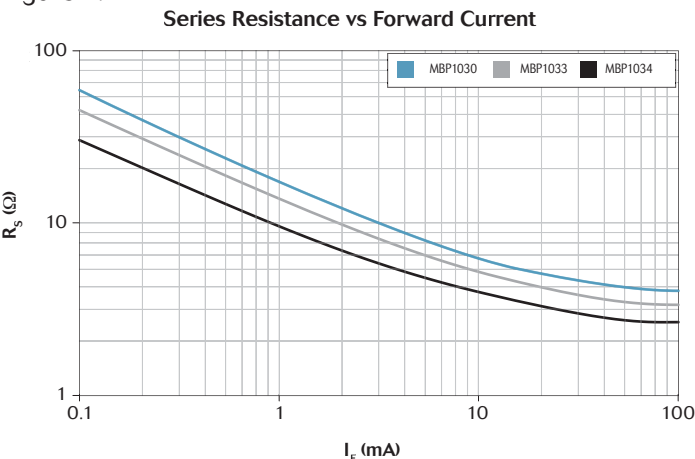


Figure 8.

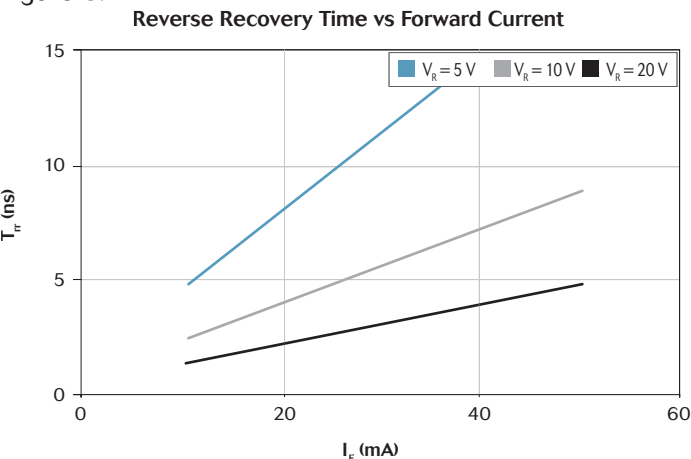


Figure 9.

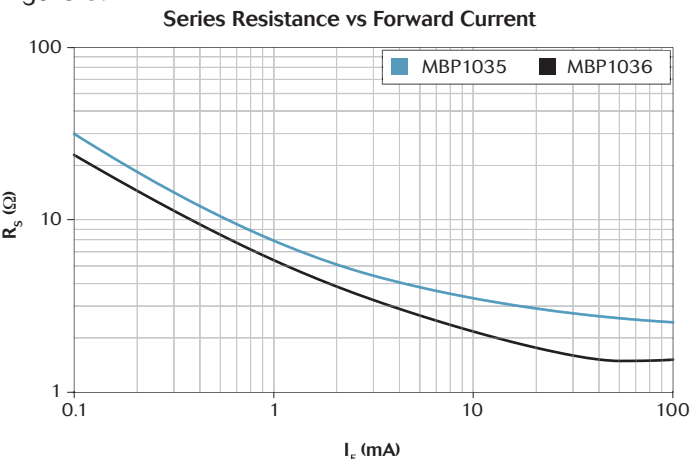


Figure 10.

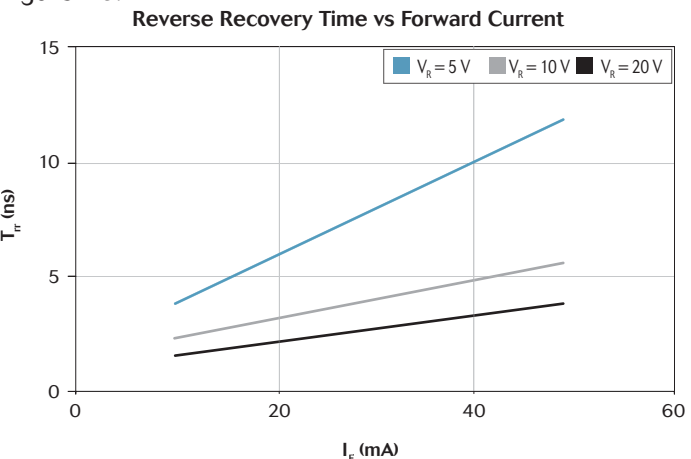


Figure 11.

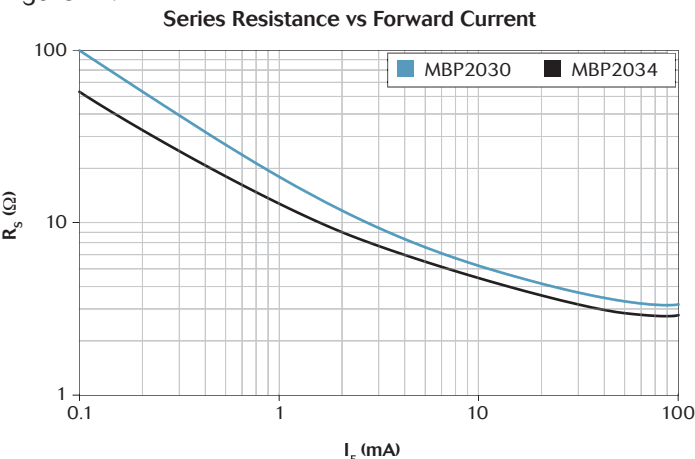
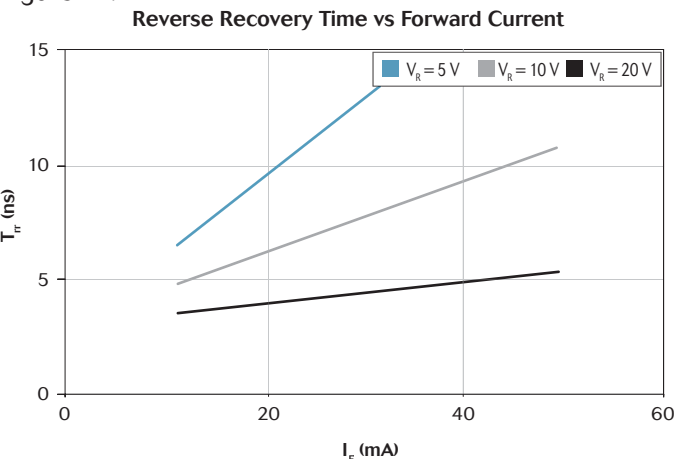
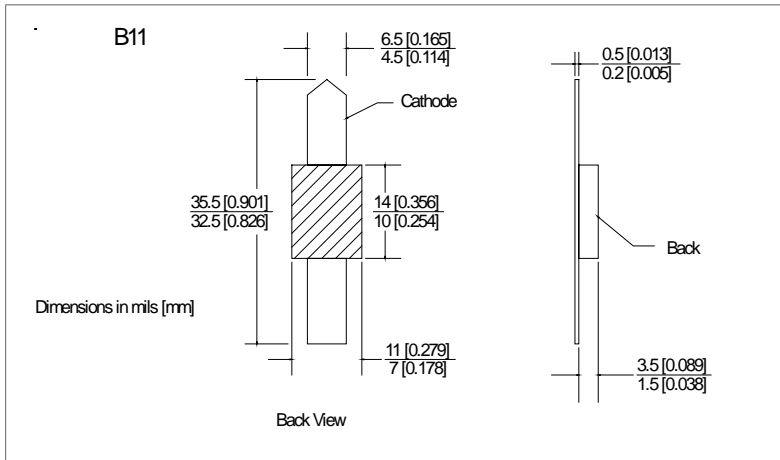


Figure 12.



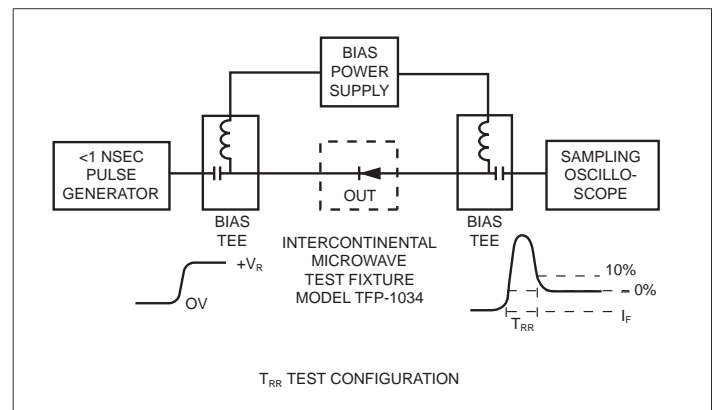
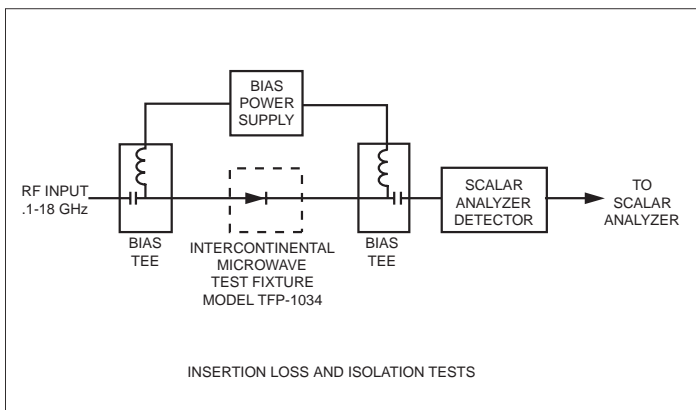
Outline Drawing

Figure 13.



Test Configurations

Figure 14.



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