MPN1xxx-12 Series

Broadband, Mesa Beam Lead PIN Diodes

Rev. V2

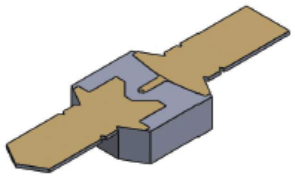
Features

- Fast Switching Speed
- Low Capacitance
- Low Resistance
- Rugged Construction
- RoHS* Compliant

Description

The MPN1xxx-12 Series beam lead PIN diodes features a unique glass and beam construction which allows for mechanical strength and stability during assembly. They are designed for low resistance, low capacitance and fast switching time.

The mesa beam lead PINs are suitable for microstrip or stripline circuits and for circuits requiring high isolation from series mounted diodes as in broadband multi-throw switches, phase shifters, attenuators, limiters and modulators.



Beam Lead Chip

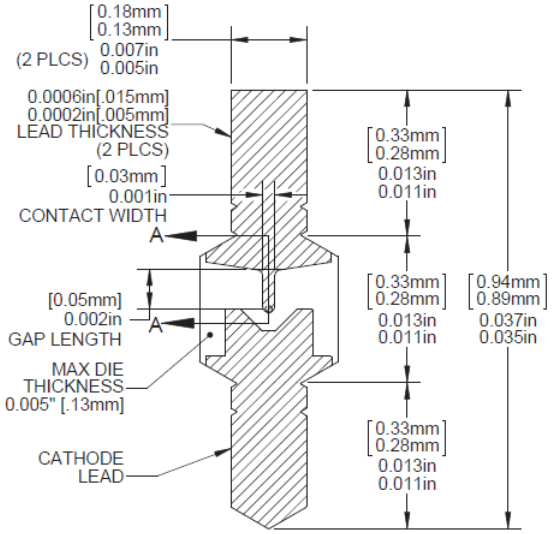
Electrical Specifications: T_A = +25°C

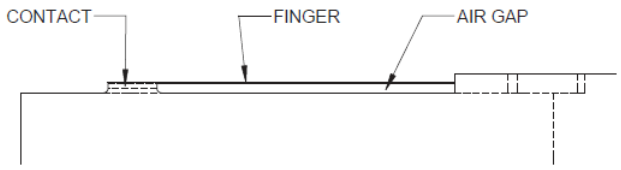
Part Number	Voltage Breakdown (V_B)	Junction Capacitance (C_J)	Series Resistance (R_S)		Lifetime (T_L)	Switching Time (T_S)
	10 µA	-10 V, 1 MHz	10 mA, 1 GHz	50 mA, 1 GHz	I_F = 10 mA, I_R = 6 mA	20% - 80%
	V	pF	Ω		ns	ns
	(Min.)	(Max.)	(Max.)	(Max.)	(Typ.)	(Max.)
MPN1000-12	100	0.020	6.5	4.0	80	5
MPN1001-12	100	0.027	6.0	3.5	80	5
MPN1002-12	100	0.030	5.5	3.2	80	5
MPN1003-12	100	0.035	5.0	2.9	80	5
MPN1004-12	100	0.040	5.0	2.7	80	5
MPN1005-12	100	0.048	5.0	2.5	80	5
MPN1006-12	100	0.055	4.0	2.3	80	5
MPN1007-12	100	0.065	4.0	2.1	80	5
MPN1100-12	50	0.025	6.0	3.7	50	3
MPN1101-12	50	0.030	5.0	3.5	50	3
MPN1102-12	50	0.040	4.5	2.9	50	3
MPN1103-12	50	0.060	4.0	2.5	50	3

Absolute Maximum Ratings[1,2]

Parameter	Absolute Maximum
DC Power Dissipation	250 mW
Operating Temperature	-55°C to +150°C
Storage Temperature	-65°C to +200°C
Typical Lead Strength	6 grams

Outline Drawing (CS12)





SECTION A-A
RIGTH SIDE
SCALE 768 : 1

Topside to be protected with polyimide coating.
Removed from visual reference.