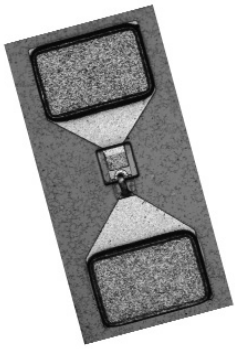
GaAs Flip Chip PIN Diodes
MP6250 – P2715

Dimensions

Size: 27.5 x 15 mils

Thickness: 5 mils

Bond Pad Size: 3.5 x 8.4 mils



Features

- Low Capacitance (45 fF Typ.)
- Low Series Resistance (5 Ω Typ.)
- 2 Nanosecond Switching Speed
- Silicon Nitride Passivation
- Large Gold Bond Pads

Specifications @ 25°C

- V_F (10 mA): 1.45 V Max.
- V_R (10 μA): 40 V Min.
- R_S (10 mA, 1 GHz): 7 Ω Max., 5 Ω Typ.
- C_T (10 V, 1 MHz): 55 fF Max., 45 fF Typ.

Maximum Ratings

Incident Power	+23 dBm @ 25°C
Reverse Voltage	40 V
Power Dissipation	50 mW @ 25°C
Operating Temperature	-65°C to +150°C
Storage Temperature	-65°C to +150°C

Description

The MP6250 is a GaAs Flip Chip PIN Diode designed for use in microwave and millimeterwave switches, attenuators and phase shifters. GaAs PIN diodes feature low zero bias capacitance and conductance, fast switching speed and its ability to be driven directly by low-cost TTL drivers.

These flip chip PIN diodes incorporate Microsemi's expertise in GaAs material processing, silicon nitride protective coatings and high temperature metalization. The flip chip design maintains the high frequency performance features of a beam lead structure in a more rugged surface mount configuration.

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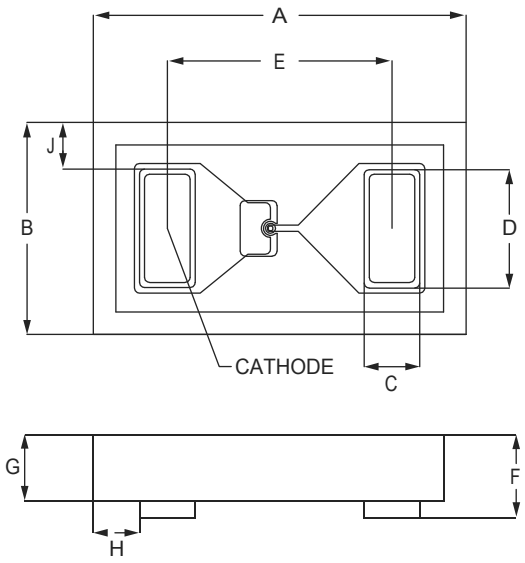
P2715



DIM	INCHES		MM	
	MIN.	MAX.	MIN.	MAX.
A	0.0270	0.0280	0.686	0.711
B	0.0145	0.0155	0.368	0.393
C	0.0030	0.0040	0.076	0.102
D	0.0079	0.0089	0201	0.226
E	0.0170	0.0180	0.432	0.457
F	0.0060	0.0070	0.152	0.178
G	0.0047	0.0057	0.119	0.145
H	0.0035	0.0045	0.089	0.114
J	0.0035	0.0045	0.089	0.114

Spice Model Parameters

I_S	R_S	N	TT	C_{J0}	C_P	M	EG	V_J	BV	IBV
A	Ω		Sec	pF	pF		eV	V	V	A
1E-13	1	2	0	0.025	0.02	0.50	1.42	1.2	40	1E-05

IMPORTANT: For the most current data, consult our website: ***www.MICROSEMI.com***
Specifications are subject to change. Consult factory for the latest information.

These devices are ESD sensitive and must be handled using ESD precautions.

[1] The MP6250 Series of products are supplied with a RoHS complaint Gold finish.

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