

# GaAs Flip Chip PIN Diode

MP6250-P2715



Size: 27.5 x 15 mils

Thickness: 5 mils

Bond Pad Size: 3.5 x 8.4 mils

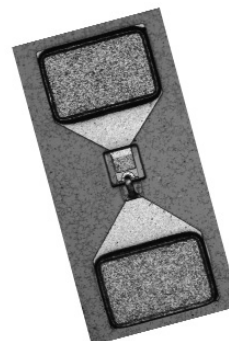
- Low Capacitance (45 fF Typ.)
- Low Series Resistance (5 Ω Typ.)
- 2 Nanosecond Switching Speed
- Silicon Nitride Passivation
- Large Gold Bond Pads



- $V_F$  (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.



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

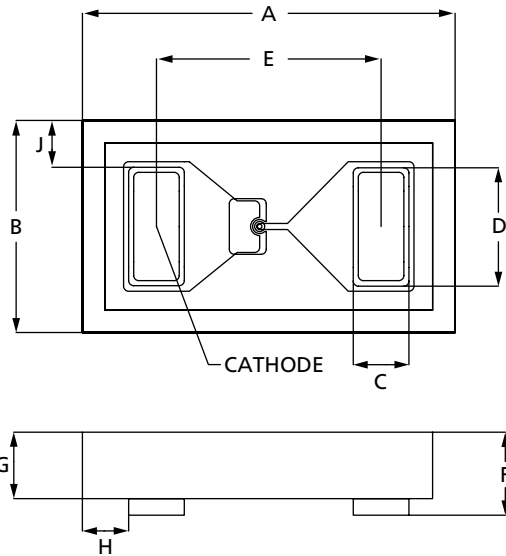


The MP6250 is a GaAs Flip Chip PIN Diode designed for use in microwave and millimeterwave switches, attenuators and phase shifters. GaAs PIN diodes feature low zero bias capacitance and conductance, fast switching speed and its ability to be driven directly by low-cost TTL drivers.

These flip chip PIN diodes incorporate MDT'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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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	0.201	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

$I_s$	$R_s$	N	TT	$C_{j0}$	$C_p$	M	EG	$V_j$	BV	IBV
A	$\Omega$		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

These devices are ESD sensitive and preventative measures must be employed in handling and storage to prevent damage from static electricity.