GaAs Schottky Devices

Low R_S Flip Chip

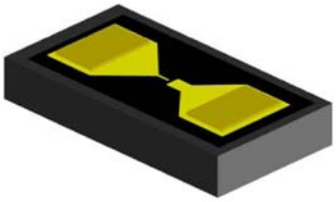
MS8150 - P2613

Dimensions

Size: 26 x 13 mils

Thickness: 5 mils

Bond Pad Size: 5 x 8 mils



Features

- Capacitance (65 fF Typ.)
- Low Series Resistance (3 Ω Typ.)
- Cut-off Frequency > 500 GHz
- Large Gold Bond Pads

Specifications @ 25°C (Per Junction)

- V_F (1 mA): 650–750 mV
- R_S (10 mA): 7 Ω Max.
- I_R (3 V): 10 µA Max.
- C_T (0 V): 80 fF Max.

Maximum Ratings

Insertion Temperature	250°C for 10 Seconds
Incident Power	+20 dBm @ 25°C
Forward Current	15 mA @ 25°C
Reverse Voltage	3 V
Operating Temperature	-55°C to +125°C
Storage Temperature	-65°C to +150°C

Description

The MS8150-P2613 is a GaAs flip chip Schottky diode designed for use as mixer and detector elements at microwave and millimeter wave frequencies. Their high cut-off frequency insures good performance at frequencies to 100 GHz. Applications include: transceivers, digital radios and automotive radar detectors.

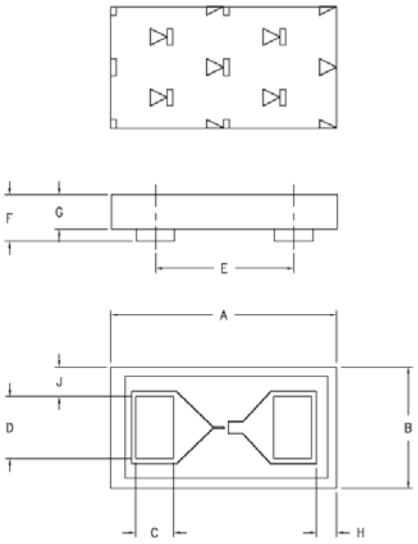
These flip chip devices incorporate Microsemi's expertise in GaAs material processing, silicon nitride protective coatings and high temperature metallization. They have large, 5 x 8 mil, bond pads for ease of insertion. The MS8150-P2613 is priced for high volume commercial and industrial applications.

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 MS8150 Series of products are supplied with a RoHS complaint Gold finish.



DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0255	0.0265	0.648	0.673
B	0.0125	0.0135	0.318	0.343
C	0.0046	0.0056	0.117	0.142
D	0.0075	0.0085	0.191	0.216
E	0.0170	0.0180	0.432	0.457
F	0.0050	0.0060	0.127	0.152
G	0.0045	0.0055	0.114	0.140
H	0.0016	0.0020	0.041	0.051
J	0.0023	0.0027	0.058	0.069

Spice Model Parameters (Per Junction)

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
2 x10^{-13}	3	1.2	0	0.045	0.02	0.50	1.42	0.85	4	1 x 10^{-5}

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