GaAs Schottky Diodes

Flip Chip Anti Parallel Low R_S

MS8250 – P2920

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
- ΔV_F (1 mA): 10 mV Max.
- 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

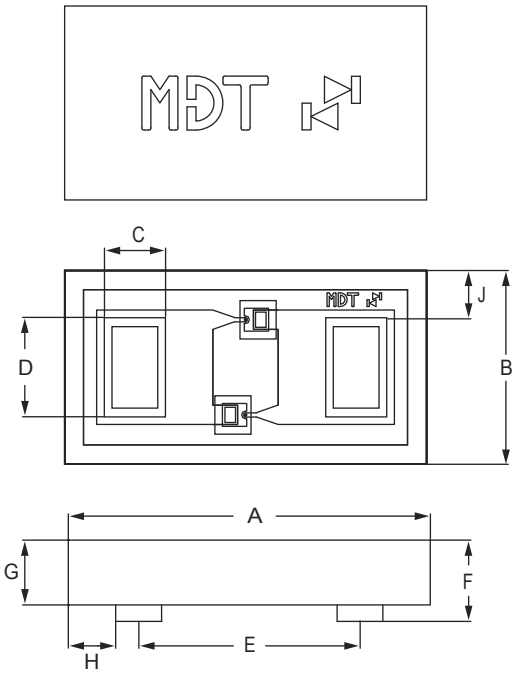
The MS8250 is a GaAs flip chip anti-parallel pair Schottky device designed for use as harmonic mixer elements at microwave and millimeter wave frequencies. Their high cut-off frequency insures good performance at frequencies to 100 GHz. Applications include: transceivers, digital radios and automotive 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 MS8250 is priced for high volume commercial and industrial applications.

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P2613



DIM	INCHES		MM	
	MIN.	MAX.	MIN.	MAX.
A	0.0255	0.0265	0.6480	0.6730
B	0.0125	0.0135	0.3180	0.3430
C	0.0046	0.0056	0.1170	0.1420
D	0.0075	0.0085	0.1910	0.2160
E	0.0170	0.0180	0.4320	0.4570
F	0.0050	0.0060	0.1270	0.1520
G	0.0045	0.0055	0.1140	0.1400
H	0.0016	0.0020	0.0406	0.0508
J	0.0023	0.0027	0.0584	0.0686

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
3.2×10^{-13}	3	1	0	0.45	0.02	0.50	1.42	0.85	4	1×10^{-5}

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 MS8250 is supplied with a RoHS complaint Gold finish.

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