

Dimensions

Size: 26 x 13 mils

Thickness: 5 mils

Bond Pad Size: 5 x 8 mils

Features

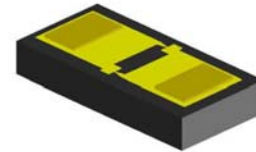
- Capacitance (45 fF Typ.)
- Low Series Resistance (7 Ω Typ.)
- Cut-Off Frequency > 500 GHz
- Large Gold Bond Pads

Specifications @ 25°C *(Per Junction)*

- V_F (1 mA): 600–800 mV
- ΔV_F (1 mA): 10 mV Max.
- R_S (10 mA): 9 Ω Max.
- I_R (3 V): 10 μ A Max.
- C_T (0 V): 60 fF Max.

Maximum Ratings

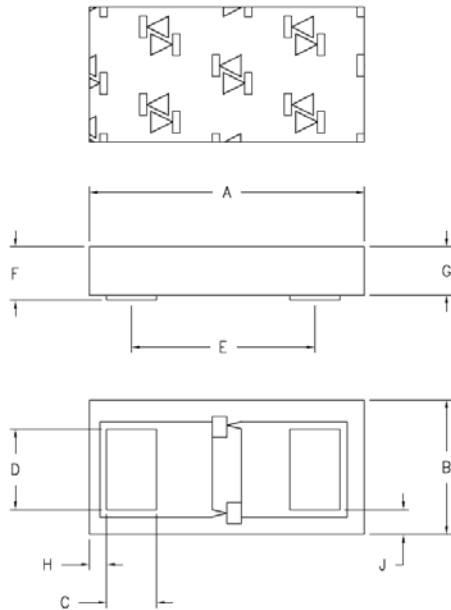
Insertion Temperature	250°C for 10 Seconds
Incident Power	+20 dBm @ 25°C
Forward Current	15 mA @ 25°C
Reverse Voltage	3 V
Operating Temperature	-55°C to +125°C
Storage Temperature	-65°C to +150°C



Description

The MS8251-P2920 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 MS8251-P2920 is priced for high volume commercial and industrial applications.



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 x 10 ⁻¹³	7	1	0	0.025	0.02	0.50	1.42	0.85	4	1 x 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 MS8251 is supplied with a RoHS complaint Gold finish.