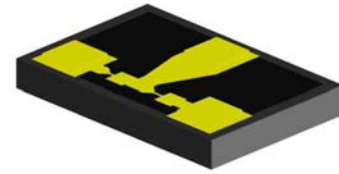


### *Dimensions*

Size: 28 x 19 mils

Thickness: 5 mils

Bond Pad Size: 5 x 5 mils



### *Features*

- Capacitance (65 fF Typ.)
- Low Series Resistance (3  $\Omega$  Typ.)
- Cut-Off Frequency > 500 GHz
- Large Gold Bond Pads

### *Specifications @ 25°C* *(Per Junction)*

- $V_F$  (1 mA): 650–750 mV
- $\Delta V_F$  (1 mA): 10 mV Max.
- $R_S$  (10 mA): 7  $\Omega$  Max.
- $I_R$  (3 V): 10  $\mu$ A Max.
- $C_T$  (0 V): 80 fF Max.

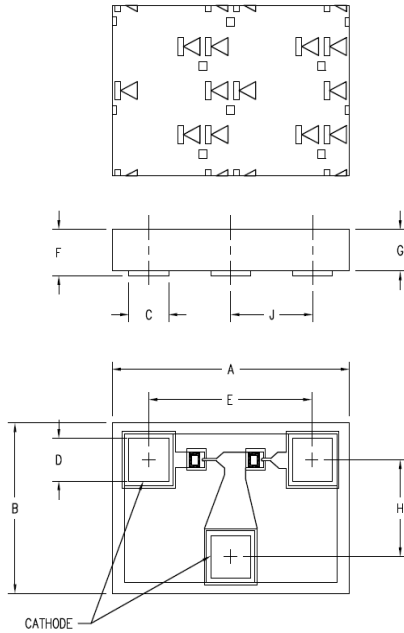
### *Maximum Ratings*

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 MS8350 is a GaAs flip chip series pair Schottky device designed for use as balanced 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 metalization. They have large, 5 x 5 mil, bond pads for ease of insertion. The MS8350 is priced for high volume commercial and industrial applications



DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0275	0.0285	0.698	0.724
B	0.0185	0.0195	0.470	0.495
C	0.0046	0.0056	0.117	0.142
D	0.0046	0.0056	0.117	0.142
E	0.0195	0.0205	0.495	0.521
F	0.0050	0.0060	0.127	0.152
G	0.0045	0.0055	0.114	0.140
H	0.0105	0.0115	0.267	0.292
J	0.0095	0.0105	0.241	0.267

### Spice Model Parameters (Per Junction)

$I_S$	$R_S$	N	TT	$C_{J0}$	$C_P$	M	EG	$V_J$	BV	IBV
A	$\Omega$		Sec	pF	pF		eV	V	V	A
$3.2 \times 10^{-13}$	3	1	0	0.045	0.02	0.50	1.42	0.85	4	$1 \times 10^{-5}$

**IMPORTANT:** For the most current data, consult our website: [www.MICROSEMI.com](http://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.

<sup>1</sup> The MS8350 Series of products are supplied with a RoHS compliant Gold finish.