



# DC1306 & DC1340

## GaAs SCHOTTKY J-BAND MICROSTRIP BEAM LEAD MIXER DIODES

These diodes are used in mixer applications requiring a better noise figure than can be achieved with silicon diodes and as sensitive broadband detectors at high microwave frequencies.

These diodes can be supplied in matched pairs by the addition of the letter M to the type number.

### FEATURES

- Low LO Drive level
- Low Conversion Loss
- J Band Operation

### APPLICATIONS

GaAs schottky mixer diodes are finding increasing applications in instrumentation, military, civil and marine radar and communications systems.

### LIMITING CONDITIONS

Storage Temperature	-55°C to +150°C
Operating Temperature	-55°C to +150°C
Pulse Burn Out (Duty Cycle 0.01%)	250mW
CW Burn Out	150mW

### TYPICAL DC CHARACTERISTICS Tamb 25°C

TYPE NUMBER	DC1306	DC1340
Frequency	J Band	J Band
Forward Voltage (Vf) @ 2.5mA	700mV	700mV
Reverse Voltage (Vr) min. @ 10µA	2V	2V
R <sub>s</sub> (10mA to 20mA)	4Ω	4Ω
C <sub>i</sub> @ 0V	100fF	100fF
Outline	107	107

### TYPICAL RF CHARACTERISTICS Tamb 25°C

TYPE NUMBER	DC1306	DC1340
Test Frequency	16.5GHz	16.5GHz
LO Drive Level	2.0mW	2.0mW
IF Impedance at 150µA	350Ω	350Ω
Overall Noise Figure max. O.N.F.	7.5dB	7.0dB
Conversion Loss	5.5dB	5.5dB