



DC1335

GaAs SCHOTTKY J-BAND WAVEGUIDE DETECTOR DIODE

This diode is used in detector applications requiring a better noise figure than can be achieved with silicon diodes and as sensitive broadband detectors at high microwave frequencies.

This diode can be supplied in matched pairs by the addition of the letter M to the type number, or with reverse polarity by the addition of the letter R to the type number.

FEATURES

- High T_{SS}
- Very Good Temperature Stability
- Very High Pulse Burn Out
- J Band Operation

APPLICATIONS

Silicon schottky detector 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%)	200mW
CW Burn Out	100mW

TYPICAL DC CHARACTERISTICS $T_{amb} 25^{\circ}C$

TYPE NUMBER	DC1335
Frequency	J Band
Forward Voltage (Vf) @ 100 μ A	600mV
Reverse Voltage (Vr) min. @ 10 μ A	2V
R_s (10mA to 20mA)	6 Ω
C_j @ 0V	60fF
Outline	51

TYPICAL RF CHARACTERISTICS $T_{amb} 25^{\circ}C$

TYPE NUMBER	DC1335
Test Frequency	16.5GHz
Tangential Sensitivity (I _{bias} = 150 μ A)	-47dBm
V _{out} (-20dBm) I _{bias} = 150 μ A	32mV
Video Impedance at 20 μ A	200 Ω