GEC PLESSEY
SEMICONDUCTORS

DC1509/13/17

SILICON SCHOTTKY S-BAND MICROSTRIP LID DETECTOR DIODES

DESCRIPTION

This general purpose diode available in the microstrip package is suitable for applications requiring high performance mixers.

These diodes 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 Tss
- Very good temperature stability
- Very high pulse burn out
- S band operation

APPLICATIONS

Silicon Schottky detector diodes are finding increasing applications in instrumentation, military, civil and marine communications systems.

LIMITING CONDITIONS

Storage conditions	-55°C to +150°C
Operating temperature	-55°C to +150°C
Pulse burn out (Duty cycle 0.01%)	400mW
CW burn out	250mW

TYPICAL DC CHARACTERSITICS Tamb 25°C

TYPE NUMBER	DC1509	DC1513	DC1517
Frequency	S Band	S Band	S Band
Forward Voltage (Vf) @ 100μA	350mV	350mV	350mV
Reverse voltage (Vr) min. @ 10μA	2V	2V	2V
Rs (10mA to 20mA) in Ohms	20	20	20
C_j @ 0V (fF)	80	80	80
Outline	09	59	20

TYPICAL RF CHARACTERSITICS Tamb 25°C

TYPE NUMBER	DC1509	DC1513	DC1517
Test Freq. (GHz)	3.0	3.0	3.0
Tangential sensitivity Ibias = 150μA	-49	-49	-50
Vout (-20dBm) Ibias = 150μA	35mV	35mV	35mV
Video Impedance (Ohms)	200	200	200