



DC1514/21/26

SILICON SCHOTTKY X-BAND WAVEGUIDE DETECTOR DIODES

DESCRIPTION

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

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
- X 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	300mW

TYPICAL DC CHARACTERISTICS Tamb 25°C

TYPE NUMBER	DC1514	DC1521	DC1526
Frequency	X Band	X Band	X 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 _i @ 0V (fF)	80	80	80
Outline	23A	51	17

TYPICAL RF CHARACTERISTICS Tamb 25°C

TYPE NUMBER	DC1514	DC1521	DC1526
Test Freq. (GHz)	9.375	9.375	9.375
Tangential sensitivity (dBm) at 20µA	-56	-56	-53 at 50µA
Vout (at -20dBm) I _{bias} = 150µA	35mV	35mV	35mV
Video Impedance at 20µA (Ohms)	1000 - 2000	1000 - 2000	1000 - 2000