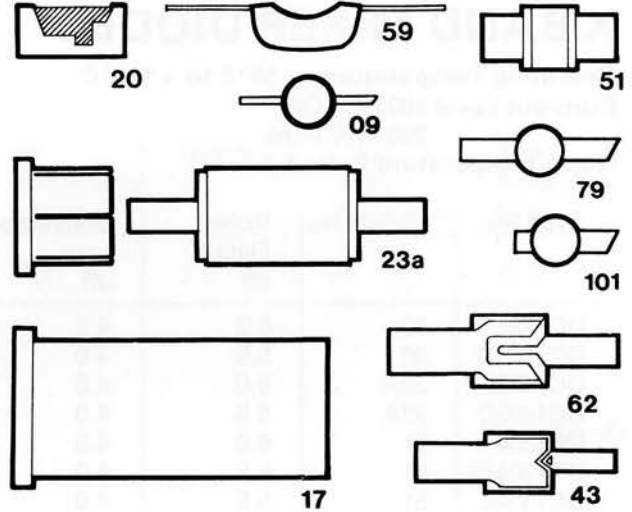


These diodes are used in mixer applications requiring a better noise figure than can be achieved with silicon diodes and as sensitive broadband detectors at high microwave frequencies. Diodes can be supplied in matched pairs by the addition of the letter M to the type number.



X BAND DETECTOR DIODES

Operating Temperature -55°C to $+150^{\circ}\text{C}$
 Burn-out Level 200mW CW
 250mW Peak
 Forward Current 10 mA at 1.0V
 Reverse Current 5.0 uA at 2V

Type No.	Outline No.	150 μ A Bias Tangential Sensitivity - dBm	150 μ A Video Impedance ohms	VSWR	Test Circuit Reference	Test Frequency GHz
DC1303	09	- 48	200	2.0	C	9.375
DC1312	59	- 48	200	2.0	C	9.375
DC1321	20	- 48	200	2.5	A	9.375
DC1322	23A	- 48	200	2.5	MOD JAN 106	9.375
DC1324	51	- 48	200	2.5	-	9.375

**DC1300
Series**

**GALLIUM ARSENIDE
SCHOTTKY BARRIER
DIODES**

**AEI
SEMICONDUCTORS**

X BAND MIXER DIODES

Operating Temperatures —55°C to +150°C

Burn-out Level 200 mW CW

250 mW Peak

Noise Temperature Ratio 1:1

Type No.	Outline No.	Noise Figure dB	Conversion Loss dB	IF Impedance ohms	VSWR	Test Circuit Reference	Test Frequency
DC1301	20	6.0	4.5	400	2.0	A	9.375
DC1301C	20	5.5	4.0	400	2.0	A	9.375
DC1302	23A	6.0	4.5	500	1.5	JAN 106	9.375
DC1302C	23A	5.5	4.0	500	1.5	JAN 106	9.375
DC1304	51	6.0	4.5	500	2.0	—	9.375
DC1304/3	51	5.8	4.0	500	1.5	—	9.375
DC1304C	51	5.5	4.0	500	1.5	—	9.375
DC1330	17	6.0	4.5	400	2.0	—	9.375
DC1332	59	6.0	4.5	400	2.0	A	9.375
DC1333	09	6.0	4.5	400	2.0	C*	9.375
DC1333C	09	5.5	4.0	400	2.0	C*	9.375

* Externally matched

J BAND DETECTOR DIODES

Operating Temperature —55°C to +150°C

Burn-out Level 100 mW CW

200 mW Peak

Min. Forward Current 10 mA at 1.0V

Max. Reverse Current 5.0 uA at 2V

Type No.	Outline No.	150μA Bias Tangential Sensitivity —dBm	150μA Video Impedance ohms	VSWR	Test Circuit Reference	Test Frequency GHz
DC1313	79	— 47	200	2.0	D	16.5
DC1314	59	— 47	200	2.0	D	16.5
DC1316	20	— 47	200	2.0	—	16.5
DC1320	101	— 47	230	2.5	—	12.0 — 18.0
DC1335	51	— 47	200	2.0	—	16.5

J BAND MIXER DIODES

Operating Temperature —55°C to +150°C

Burn-out Level 150 mW CW

250 mW Peak

Noise Temperature Ratio 1:1

Type No.	Outline No.	Noise Figure dB	Conversion Loss dB	IF Impedance ohms	VSWR	Test Circuit Reference	Test Frequency GHz
DC1306	62	7.0	6.0	350	2.0	B	16.5
DC1323	20	6.5	5.0	500	2.0	—	—
DC1325	51	6.5	5.0	500	2.0	—	—
DC1334	59	6.5	5.0	500	2.0	—	—

Q BAND MIXER DIODES

Operating Temperature -55°C to +150°C
Noise Temperature 1:1

Type No.	Outline No	Noise Figure dB	Conversion Loss dB	IF Impedance ohms	VSWR	Test Circuit Reference	Test Frequency GHz
DC1308	43	9.0	7.5	300	3.0	F	35.0

**BRITISH STANDARD
APPROVED TYPES**

The following Diodes are available to BS 9300 specification:—

Type No.	BS 9300 Specification No.
DB1304	BS 9321 F010
DB1304C	BS 9321 F011
DB1304/3	BS 9321 F012
DB1304M	BS 9321 F013
DB1304CM	BS 9321 F014
DB1304/3M	BS 9321 F015
DB1312	BS 9322 F003
DB1333	BS 9321 F001
DB1333M	BS 9321 F002
DB1301	BS9321 F0031
DB1301C	BS9321 F0032
DB1301M	BS9321 F0033
DB1301CM	BS9321 F0034
DB1311	BS9321 F0006
DB1320	BS9321 F0007

