



TUNNEL DIODE DETECTORS

0.1 - 40 GHz

FEATURES

- No Bias Required
- Very Low Output Resistance (125 Ohm Typical)
- Fast Pulse Detecting Capability (Less Than 5 nsec Typical Rise Time)
- Broadband, Flat Frequency Response
- Excellent Temperature Stability (± 0.5 dB Typical Over Temperature Extremes)
- Very Low 1/f Noise



APPLICATIONS

- Radar Equipment
- Transmitter Monitoring
- Power and Signal Monitoring
- Missile Guidance Systems

ENVIRONMENTAL RATINGS

Max Input Power..... 50 mW CW
 Operating Temperature Range..... -55°C to +100°C
 Storage Temperature Range..... -55°C to +100°C
 Shock..... 50G, 11 msec
 Vibration..... 20G, 100 to 2000 Hz

Specifications: (@ +25°C, Up to -20 dBm Power Input)

MODEL ¹	FREQUENCY RANGE (GHz)	MINIMUM SENSITIVITY K (mV / mW)	TYPICAL TSS ² (dBm)	MAXIMUM FLATNESS (+/- dB)	TYPICAL VSWR	TYPICAL OUTPUT CAPACITANCE (pF)	PACKAGE ³ STYLE
DT0105 DT0110	0.1 - 0.5 0.1 - 1.0	1000 800	-51 -50	0.75 0.75	2.0:1 2.0:1	200 200	B
DT0510 DT0520	0.5 - 1.0 0.5 - 2.0	1000 800	-51 -50	0.5 0.7	2.0:1 2.0:1	50 50	B
DT1020 DT1040	1.0 - 2.0 1.0 - 4.0	1000 800	-51 -50	0.5 0.7	2.0:1 2.5:1	20 20	B
DT1080 DT1012	1.0 - 8.0 1.0 - 12.0	750 750	-50 -50	0.8 0.85	3.5:1 3.5:1	20 20	B
DT2040 DT2080	2.0 - 4.0 2.0 - 8.0	1000 800	-51 -50	0.5 0.75	2.0:1 3.0:1	10 10	B
DT4080 DT7011	4.0 - 8.0 7.0 - 11.0	900 800	-51 -50	0.6 0.5	2.5:1 2.0:1	10 10	B
DT6018 DT8018	6.0 - 18.0 8.0 - 18.0	700 750	-50 -50	0.9 0.8	3.0:1 3.0:1	10 10	B
DT8012 DT8016	8.0 - 12.0 8.0 - 16.0	800 800	-50 -50	0.5 0.7	2.5:1 2.5:1	10 10	B
DT1218 DT1018	12.0 - 18.0 1.0 - 18.0	750 700	-50 -50	0.7 1.0	2.5:1 3.5:1	10 20	B
DT2018 DT1826	2.0 - 18.0 18.0 - 26.5	700 400	-50 -47	1.0 1.0	3.5:1 3.0:1	10 10	B
DT1026 DT2026	1.0 - 26.5 2.0 - 26.5	400 400	-47 -47	1.5 1.5	3.5:1 3.5:1	20 10	B
DT1840 DT2640	18.0 - 40.0 26.0 - 40.0	300 300	-46 -46	1.75 1.5	4.0:1 4.0:1	10 10	C1
DT1-40 DT2-40	1.0 - 40.0 2.0 - 40.0	250 250	-45 -45	2.0 2.0	4.0:1 4.0:1	20 10	C1

Note 1: Negative output polarity standard. Add "P" to end of model number for positive output polarity.

Note 2: TSS based on 2 MHz video bandwidth and 2 dB amplifier NF.

Note 3: See detector package outlines.

For Package Outlines see Outline Drawings Page