

## Planar Tunnel Diode Detectors 100 MHz to 26.5 GHz

### FEATURES

- > No Bias
- > Extremely Low Video Output Resistance (125  $\Omega$  Typ.)
- > Extremely Fast Pulse Response (5 ns Risetime Typ.)
- > High Reliability Hermetically Sealed Modules

Maximum Input Power: +17 dBm CW  
 Operating Temperature Range: -55°C to +90°C  
 Storage Temperature Range: -65°C to +125°C  
 Specification @ +25°C and -20 dBm Input Power

Model No.	Frequency (GHz)	Voltage Sensitivity (mV/mW Typ.)	Tss <sup>3</sup> (dBm Typ.)	VSWR(Typ.)	Flatness ( $\pm$ dB Max.)	Video Capacitance(pF)
<b>Broad Band Detectors</b>						
DT0120	0.1 - 2.0	800	-51	2.0:1	0.75	470
DT0140	0.1 - 4.0	800	-51	2.2:1	0.75	470
DT0112	0.1 - 12.4	450	-50	2.5:1	1.00	470
DT0518	0.5 - 18.5	400	-50	3.5:1	1.00	100
DT1018	1.0 - 18.0	400	-47	3.5:1	1.00	50
DT2018	2.0 - 18.0	500	-47	3.5:1	1.00	20
DT6018	6.0 - 18.0	700	-47	3.0:1	0.75	10
DT8018	8.0 - 18.0	700	-47	3.0:1	0.75	10
<b>Octave Band Detectors</b>						
DT0510	0.5 - 1.0	1000	-51	2.0:1	0.50	100
DT0714	0.7 - 1.4	1000	-51	2.0:1	0.50	100
DT1020	1.0 - 2.0	1000	-51	2.0:1	0.50	50
DT2040	2.0 - 4.0	1000	-51	2.0:1	0.50	20
DT2060	2.0 - 6.0	1000	-50	2.5:1	0.50	20
DT2550	2.5 - 5.0	1000	-50	2.5:1	0.50	20
DT4080	4.0 - 8.0	900	-50	2.5:1	0.70	20
DT5010	5.0 - 10.0	800	-50	2.5:1	0.80	20
DT6012	6.0 - 12.0	800	-50	2.7:1	0.60	10
DT8012	8.0 - 12.0	800	-50	2.7:1	0.50	10
DT8016	8.0 - 16.0	800	-50	2.7:1	0.70	10
DT1218	12.0 - 18.0	700	-47	3.0:1	0.50	10
DT1826	18.0 - 26.0	400	-47	4.0:1	1.00	5
<b>Narrow Band Detectors</b>						
DT1724	1.7 - 2.4	1200	-51	2.0:1	0.20	50
DT2223	2.2 - 2.3	1200	-51	2.0:1	0.20	20
DT3742	3.7 - 4.2	1200	-51	2.0:1	0.20	20
DT5459	5.4 - 5.9	1200	-50	2.0:1	0.20	20
DT5865	5.8 - 6.5	1200	-50	2.3:1	0.25	20
DT7585	7.5 - 8.5	1000	-50	2.3:1	0.25	20
DT8596	8.5 - 9.6	1000	-50	2.3:1	0.25	10
DT1014	10.0 - 14.0	1000	-50	2.7:1	0.30	10
DT1315	13.0 - 15.0	1000	-50	2.7:1	0.30	10
DT1416	14.0 - 16.0	800	-50	2.7:1	0.40	10
DT1618	16.0 - 18.0	800	-47	3.0:1	0.50	5

1. Negative output polarity is standard. Add P to end of model number for positive polarity.  
 2. Add suffix to end of model number for Package Style. Example: DT1618PA3 , Positive polarity and Package Style "A3"  
 3. Measured with a 2 MHz bandwidth and 3 dB noise figure video amplifier.