



T. R. CELL

A very broad band power limiting cell for use in Radar systems as a unit to provide protection for crystals against random signals.

PHYSICAL DATA.

Dimensions	...	...	See outline drawing overleaf.
Waveguide	...	...	W.G.16 (0.4" x 0.9").
Primer Terminal	...	...	CT.1.
Mounting Position	...	...	Any.

FREQUENCY RANGE ... 7000 to 11500 Mc/s.

RATINGS.

Max. Line Power level	...	...	100 watts.
*Max. Primer Supply Voltage	...	...	-1500 volts.
Min. Primer Supply Voltage	...	...	-950 volts.
*Max. Primer Current	...	...	150 μ A.
*Min. Primer Current	...	...	100 μ A.
Ambient Temperature Range (non-operating)	...	...	-40 to +100 °C.

CHARACTERISTICS.

Low Power Level.	Average. Limit.	
Insertion Loss :-		
7400- 7900 Mc/s.	...	0.6 1.2 dB.
8000- 9900 Mc/s.	...	0.4 0.9 dB.
10000-10600 Mc/s.	...	0.3 0.8 dB.
7000-11500 Mc/s.	...	— 4 dB.
High Power Level.		
Breakdown Power	...	150 300 mW.
Leakage at 40kW. peak :-		
Total Leakage Power	...	60 — mW.
Spike Leakage Energy	...	0.13 — ergs/pulse.
†Recovery Time (to 6dB. loss)	...	— 50 μ Sec.
Primer Characteristics.		
Primer Operating Voltage	...	190 170 to 240) volts.

*A suitable resistor should be connected in series with the electrode to limit the current to between 100 and 150 micro-amperes. At least 1 megohm should be connected directly to the primer electrode terminal.

†Measured at 10 watts.



