

# POWER DISSIPATION vs. TEMPERATURE RISE

Power dissipation (mw/cc) as a function of temperature rise				Power rating for 25°C temperature rise due to core loss. No. 2 material, frequency 1 MHz.	
Core Size	10 °C	25 °C	40 °C	Core Size	Watts
T-30	400	1148	2026	T-30	24
T-37	412	1170	2065	T-37	26
T-44	310	884	1556	T-44	37
T-50	307	874	1535	T-50	49
T-68	234	664	1167	T-68	88
T-80	212	602	1056	T-80	125
<b>T-94</b>	<b>160</b>	<b>454</b>	<b>802</b>	<b>T-94</b>	<b>160</b>
<b>T-106</b>	<b>114</b>	<b>322</b>	<b>566</b>	<b>T-106</b>	<b>236</b>
T-130	117	331	582	T-130	331
T-157	94	266	468	T-157	515
T-200	87	260	436	T-200	794
T-300	62	186	327	T-300	1127
T-400	43	130	228	T-400	2108

Additional information about power dissipation upon request

## PROPERTY CHART - IRON POWDER

Iron Powder Material	Basic Iron Powder	Material Permeability $\mu_o$	Temperature Stability (ppm/°C)	Resonant Circuit Frequency Range (MHz)	Color Code
0	Phenolic	1	0	100.0 - 300.0	Tan
1	Carbonyl C	20	280	0.5 - 5.0	Blue
<b>2</b>	<b>Carbonyl E</b>	<b>10</b>	<b>95</b>	<b>2.0 - 30.0</b>	<b>Red</b>
3	Carbonyl HP	35	370	0.05 - 0.5	Grey
6	Carbonyl SF	8	35	10.0 - 50.0	Yellow
7	Carbonyl TH	9	30	5.0 - 35.0	White
10	Carbonyl W	6	150	30.0 - 100.0	Black
12	Synthetic Oxide	4	170*	50.0 - 200.0	Green/White
15	Carbonyl GS6	25	190	0.10 - 2.0	Red/White
17	Carbonyl	4	50	50.00 - 200.0	Blue/Yellow
26	Special	75	882	LF filters, chokes	Yellow/White

\* Non Linear

Material # 17 has been developed as a temperature stable alternative to the #12.

Frequency ranges shown are for best 'Q'. Useful over broader frequency range with lower 'Q'.