RADIO CONSTRUCTORS DATA SHEET 21

E. R. DISSIPATION TABLE
(Voltages Below 50)

The Table gives dissipation in watts, from $W = \frac{E^2}{R}$, for resistance at commonly encountered voltages below 50. For resistances above 4.7kΩ divide down from the value shown for 1kΩ Thus, 10kΩ at 40V is 1·6 ÷ 10, or 0·16 watts. (See Data Sheet No. 22 for further details.)

Resistance	1V	2V	3V	4V	6V	8V	10V	15V	20V	30V	40V
1Ω	1	4	9	16							
2·2Ω	0·45	1·8	4·1	7·3	16						
4·7Ω	0·21	0·85	1·9	3·4	7·7	14	21				
6·8Ω	0·15	0·59	1·3	2·4	5·3	9·4	15				
10Ω	0·1	0·4	0·9	1·6	3·6	6·4	10				
22Ω	0·045	0·18	0·41	0·73	1·6	2·9	4·5	10	18		
47Ω	0·021	0·085	0·19	0·34	0·77	1·4	2·1	4·8	8·5	19	
68Ω	0·015	0·059	0·13	0·24	0·53	0·94	1·5	3·3	5·9	13	
100Ω	0·01	0·04	0·09	0·16	0·36	0·64	1·0	2·3	4·0	9·0	16
220Ω		0·018	0·041	0·073	0·16	0·29	0·45	1·0	1·8	4·1	7·3
470Ω			0·019	0·034	0·077	0·14	0·21	0·48	0·85	1·9	3·4
680Ω			0·013	0·024	0·053	0·094	0·15	0·33	0·59	1·3	2·4
1kΩ				0·016	0·036	0·064	0·1	0·23	0·4	0·9	1·6
2·2kΩ					0·016	0·029	0·045	0·1	0·18	0·41	0·73
4·7kΩ						0·014	0·021	0·048	0·085	0·19	0·34

RADIO CONSTRUCTORS DATA SHEET 22

E.R. DISSIPATION TABLE
(50 Volts and above)

The Table gives dissipation in watts, from $W = \frac{E^2}{R}$, for resistance at commonly encountered voltages from 50V to 500V. For resistances above 1MΩ divide down from the value shown for this resistance, using the method detailed in Data Sheet No. 21. For reliable working, carbon resistors require ratings at least 1·5 times the wattage figure given here or in Data Sheet No. 21.

Resistance	50V	60V	80V	100V	120V	140V	160V	200V	300V	400V	500V
470Ω	5·3	7·7	14	21							
680Ω	3·7	5·3	9·4	15	21						
1kΩ	2·5	3·6	6·4	10	14	20					
2·2kΩ	1·1	1·6	2·9	4·5	6·6	8·9	12	18			
4·7kΩ	0·53	0·77	1·4	2·1	3·1	4·2	5·4	8·5			
6·8kΩ	0·37	0·53	0·94	1·5	2·1	2·9	3·8	5·9	13		
10kΩ	0·25	0·36	0·64	1·0	1·4	2·0	2·6	4·0	9	16	
22kΩ	0·11	0·16	0·29	0·45	0·66	0·89	1·2	1·8	4·1	7·3	11
47kΩ	0·053	0·077	0·14	0·21	0·31	0·42	0·54	0·85	1·9	3·4	5·3
68kΩ	0·037	0·053	0·094	0·15	0·21	0·29	0·38	0·59	1·3	2·4	3·7
100kΩ	0·025	0·036	0·064	0·1	0·14	0·2	0·26	0·4	0·9	1·6	2·5
220kΩ	0·011	0·016	0·029	0·045	0·066	0·089	0·12	0·18	0·41	0·73	1·1
470kΩ			0·014	0·021	0·031	0·042	0·054	0·085	0·19	0·34	0·53
680kΩ				0·015	0·021	0·029	0·038	0·059	0·13	0·24	0·37
1MΩ				0·01	0·014	0·02	0·026	0·04	0·09	0·16	0·25