



THE DATASHEET OF HW451



1/2 WATT METAL

Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number	Value in Ohms	NTE Stock Number
0.10	HWD10	1.6	HW1D6	27	HW027	430	HW143	6.8K	HW268	110K	HW411	1.8M	HW518
0.11	HWD11	1.8	HW1D8	30	HW030	470	HW147	7.5K	HW275	120K	HW412	2M	HW520
0.12	HWD12	2.0	HW2D0	33	HW033	510	HW151	8.2K	HW282	130K	HW413	2.2M	HW522
0.13	HWD13	2.2	HW2D2	36	HW036	560	HW156	9.1K	HW291	150K	HW415	2.4M	HW524
0.15	HWD15	2.4	HW2D4	39	HW039	620	HW162	10K	HW310	160K	HW416	2.7M	HW527
0.16	HWD16	2.7	HW2D7	43	HW043	680	HW168	11K	HW311	180K	HW418	3M	HW530
0.18	HWD18	3.0	HW3D0	47	HW047	750	HW175	12K	HW312	200K	HW420	3.3M	HW533
0.20	HWD20	3.3	HW3D3	51	HW051	820	HW182	13K	HW313	220K	HW422	3.6M	HW536
0.22	HWD22	3.6	HW3D6	56	HW056	910	HW191	15K	HW315	240K	HW424	3.9M	HW539
0.24	HWD24	3.9	HW3D9	62	HW062	1K	HW210	16K	HW316	270K	HW427	4.3M	HW543
0.27	HWD27	4.3	HW4D3	68	HW068	1.1K	HW211	18K	HW318	300K	HW430	4.7M	HW547
0.30	HWD30	4.7	HW4D7	75	HW075	1.2K	HW212	20K	HW320	330K	HW433	5.1M	HW551
0.33	HWD33	5.1	HW5D1	82	HW082	1.3K	HW213	22K	HW322	360K	HW436	5.6M	HW556
0.36	HWD36	5.6	HW5D6	91	HW091	1.5K	HW215	24K	HW324	390K	HW439	6.2M	HW562
0.39	HWD39	6.2	HW6D2	100	HW110	1.6K	HW216	27K	HW327	430K	HW443	6.8M	HW568
0.43	HWD43	6.8	HW6D8	110	HW111	1.8K	HW218	30K	HW330	470K	HW447	7.5M	HW575
0.47	HWD47	7.5	HW7D5	120	HW112	2K	HW220	33K	HW333	510K	HW451	8.2M	HW582
0.51	HWD51	8.2	HW8D2	130	HW113	2.2K	HW222	36K	HW336	560K	HW456	9.1M	HW591
0.56	HWD56	9.1	HW9D1	150	HW115	2.4K	HW224	39K	HW339	620K	HW462	10M	HW610
0.62	HWD62	10	HW010	160	HW116	2.7K	HW227	43K	HW343	680K	HW468	11M	HW611
0.68	HWD68	11	HW011	180	HW118	3K	HW230	47K	HW347	750K	HW475	12M	HW612
0.75	HWD75	12	HW012	200	HW120	3.3K	HW233	51K	HW351	820K	HW482	13M	HW613
0.82	HWD82	13	HW013	220	HW122	3.6K	HW236	56K	HW356	910K	HW491	15M	HW615
0.91	HWD91	15	HW015	240	HW124	3.9K	HW239	62K	HW362	1M	HW510	16M	HW616
1.0	HW1D0	16	HW016	270	HW127	4.3K	HW243	68K	HW368	1.1M	HW511	18M	HW618
1.1	HW1D1	18	HW018	300	HW130	4.7K	HW247	75K	HW375	1.2M	HW512	20M	HW620
1.2	HW1D2	20	HW020	330	HW133	5.1K	HW251	82K	HW382	1.3M	HW513	22M	HW622
1.3	HW1D3	22	HW022	360	HW136	5.6K	HW256	91K	HW391	1.5M	HW515		
1.5	HW1D5	24	HW024	390	HW139	6.2K	HW262	100K	HW410	1.6M	HW516		

SPECIFICATIONS

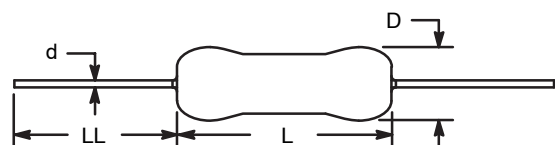
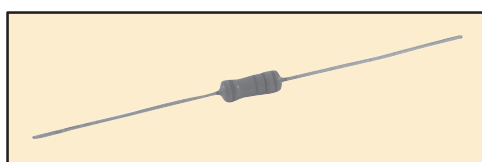
Electrical Characteristics @ 70°C

NTE Number	Resistance Range (Ohms)	Tolerance (%)	Voltage (Volts)	Operating Temperature (T _{opr})	Temperature Coefficient (PPM/°C)
HWD10 thru HW9D1	0.20 to 9.1	5	300	-55° to +155°C	100
HW010 thru HW510	10 to 1M	2	350	-55° to +155°C	200
HW511 thru HW622	1.1M to 22M	2	350	-55° to +155°C	200

Mechanical* (Typical, inches/mm)



NTE Number	Body Length (L)	Body Diameter (D)	Lead Diameter (d)	Lead Length (LL)
HWD10 thru HW9D1	0.375 (9.5)	0.138 (3.5)	0.027 (0.7)	1.02 (26)
HW010 thru HW510	0.355 (9.02)	0.148 (3.76)	0.032 (0.81)	1.5 (38.1)
HW511 thru HW622	0.375 (9.5)	0.138 (3.5)	0.032 (0.81)	1.18 (30)

* These dimensions are for reference only, please consult the factory for actual size.









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