

Aluminum Housed Wirewound Resistors



FEATURES

- Wirewound resistor with high power rating
- Anodized aluminum casing to utilize heat-sink effect
- Self-protecting
- Short circuit proof
- Protection according to IP 54

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING P _{70°C} W	LIMITING ELEMENT VOLTAGE ²⁾ V	TEMPERATURE COEFFICIENT (ppm/K)	RESISTANCE VALUES ¹⁾ Ω	TOLERANCE ± %
BWD 250	100	350	+ 20...+ 100	10, 27, 33, 47, 72, 100, 150, 200, 220, 330, 430, 620, 830	5
BWD 500	200	350	+ 20...+ 100	10, 12, 15, 22, 27, 35, 40, 43, 47, 50, 60, 72, 100, 130, 150, 160, 200, 210, 240, 300, 310, 430, 620	5

NOTES: 1) Further values and tolerances on request

2) Rated voltage $\sqrt{P \times R}$

TECHNICAL CHARACTERISTICS

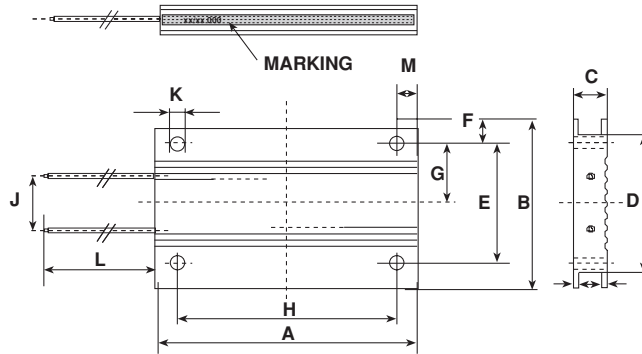
PARAMETER	UNIT	BWD 250	BWD 500
Rated Dissipation at 70°C	W	100	200
Rated Dissipation at 20°C, 35% ED	W	250	500
Limiting Element Voltage ²⁾	VDC/AC	≤ 700/≤1000	
Insulation Voltage (1 min)	Vdc/ac peak	> 4000	
Thermal Time Constant	τ sec	400	800
Insulation Resistance at 1000VDC	Ω	≤ 10 ⁸	
Category Temperature Range	°C	- 55/+ 250	
Inductance	L _{μH}	≤ 50	
Capacitance vs Housing	C _{pF}	≤ 300	
Failure Rate	10 ⁻⁹ /h	< 1000	
Weight/1000 pieces	g	280	550

NOTE: 2) Rated voltage $\sqrt{P \times R}$

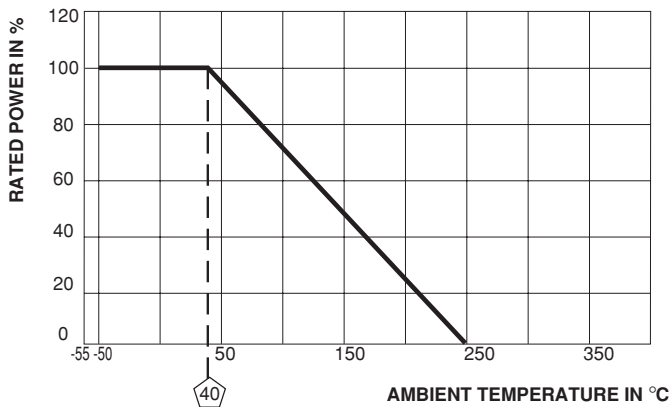
ORDERING INFORMATION

BWD	250	100R	± 5%
MODEL	SIZE	RESISTANCE VALUE Ω	TOLERANCE ± %

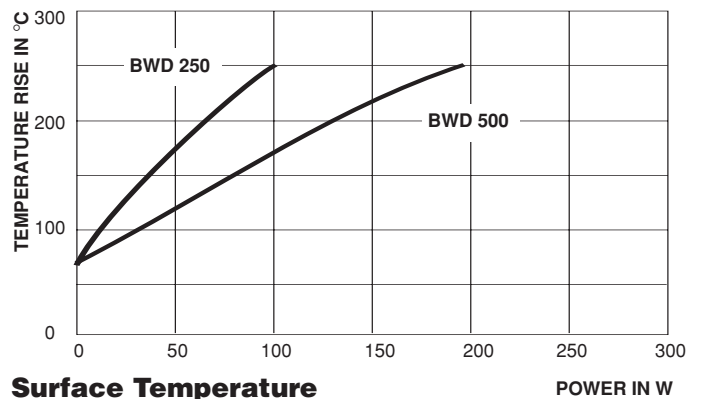
DIMENSIONS



MODEL	DIMENSIONS in millimeters [inches]											
	A	B	C	D	E	F	G	H	J	K	L	M
BWD 250	110 [4.331]	80 [3.15]	15 [0.591]	67 [2.638]	60 [2.362]	10 [0.394]	30 [1.181]	98 [3.858]	22 [0.866]	4.6 - 4.9 [0.181 - 0.193]	510 [20.079]	6 [0.236]
BWD 500	261 [8.504]	80 [3.15]	15 [0.591]	67 [2.638]	60 [2.362]	10 [0.394]	30 [1.181]	204 [8.031]	22 [0.866]	4.6 - 4.9 [0.181 - 0.193]	510 [20.079]	6 [0.236]
TOL.	± 1.5 [± 0.059]	± 1 [± 0.039]	± 0.5 [± 0.020]	± 0.3 [± 0.012]	± 0.2 [± 0.008]	± 0.2 [± 0.008]	± 0.5 [± 0.020]	± 0.4 [± 0.016]	± 2 [± 0.079]		± 40 [± 1.575]	± 0.1 [± 0.004]



Derating



**Surface Temperature
(At continuous load)**

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST RESULTS
Endurance Test at 70°C	IEC 60115-1 4.25.1 1000 hours at 70°C	≤ ± 2.0%
Endurance Test at UCT	IEC 60115-1 4.25.3 1000 hours at 200°C without load	≤ ± 2.0%
Overload Test	IEC 60115-1 4.13 Short time overload for 5 seconds	≤ ± 2.0%
Thermal Shock	IEC 60115-1 4.19 IEC 68-2-14 Rapid change between upper and lower category temperature	≤ ± 1.0%
Damp Heat Steady State	IEC 60115-1 4.24 IEC 68-2-3 56 days at 40°C and 93% relative humidity	≤ ± 1.0%