



## FEATURES

- Extruded aluminium housing provides superior heat conduction. Housing deep finned for maximum heat dissipation at natural or forced air convection.
- Gold anodized finish for maximum resistance to environmental conditions.
- Special thermosetting compound with high thermal conductivity
- Winding designed to give maximum core coverage and uniformity for even heat dissipation.
- Core centerless ground for maximum winding uniformity.
- Marking at top surface for easy identification after mounting.
- Complete welded construction terminal to terminal.

## SPECIFICATION

These resistors meet or exceed the requirements of MIL-R-18546 E specification.

## ELECTRICAL

For **Power ratings** and **Resistance values**: see table.

### Tolerance

the following tolerances are available: 1%, 3%, 5%

### Temperature coefficient

- 30 ppm  $R > 20 \text{ Ohm}$
- 50 ppm  $1 \text{ Ohm} < R < 20 \text{ Ohm}$
- 100 ppm  $0.1 \text{ Ohm} < R < 1 \text{ Ohm}$ .

### Dielectric strength

- 1.500 Vac for RB5 / RB10
- 2.500 Vac for RB25 / RB50
- 3.500 Vac for RB75 / RB101 / RB150
- 4.500 Vac for RB100 / RB 250.

### Insulation resistance

- 10.000 MOhms minimum
- 1.000 MOhms after moisture test.

### Overload

5 sec. at 5 times rated power.

### Non inductive

Models of equivalent physical and electrical specifications are available with non inductive Ayrton-Perry winding.

## MECHANICAL

### Terminal strength

10 lb. pull test.

### Solderability

Satisfactory when tested in accordance with method 208 of MIL-STD-202  
The use of high temperature solder is recommended when resistors are operated near the maximum specified ratings.

## MATERIAL

### Core

Ceramic steatite or alumina centerless ground.

### Element

Copper-nickel alloy or nickel-chrome alloy of determined temperature coefficient.

### End caps

Stainless steel.

### Encapsulant

High temperature thermosetting compound.

### Housing

Aluminium with hard anodic coating

### Standard terminals

- Copperweld RB5 to RB150.
- Stainless steel for RB100 and RB250.

## DERATING

ATE RB resistors have an operative temperature range of  $-55 \text{ }^\circ\text{C}$  to  $+250 \text{ }^\circ\text{C}$ . Derating is required for reduced chassis area and for high ambient temperature.

ATE type	Type MIL-R-18546E	Nominal power (W)	Max power no heatsink (W)	Res. range (Ohm)	V limit (V)	Temp. rise with heatsink (°C/W)	Weight (Gr)	Heatsink dim. (cm <sup>2</sup> x mm)
<b>RB5</b>	RE 60	7.5	4	0.01/6K8	160	4,5	3.5	415x1
<b>RB10</b>	RE 65	12	6	0.01/10K	265	5,1	6	415x1
<b>RB25</b>	RE 70	25	12,5	0.01/18K	550	3	14	535x1
<b>RB50</b>	RE 75	50	20	0.01/68K	1250	1,9	35	930x1.5
<b>RB75</b>	-	75	35	0.1/50K	1400	1,1	85	995x3
<b>RB101</b>	-	100	40	0.1/70K	1900	1	115	995x3
<b>RB150</b>	-	150	55	0.1/100K	2500	1	165	995x3
<b>RB100</b>	RE 77	150	75	0.1/100K	1900	0,84	500	930x3
<b>RB250</b>	RE 80	250	100	0.1/120K	2300	0,66	900	930x3

ATE type	DIMENSIONS (mm)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	Ø
<b>RB5</b>	16.5	28.6	8.2	8.5	15.3	11.3	12.4	4	2	1.6	2.4	-	1.5	1.3
<b>RB10</b>	20.4	35	10	11	19	14.3	15.9	5	2.4	2	2.4	-	2	2.2
<b>RB25</b>	27.2	49	14	14	27	18.3	19.8	6.5	4.4	2	3.2	-	2	2.2
<b>RB50</b>	29.2	71	16	16	50	39.7	21.5	7	5.2	2	3.2	-	2	2.2
<b>RB75</b>	47.5	73	24	27	48	29	37	11.5	9.5	3.5	4.4	-	3	3.2
<b>RB101</b>	47.5	89	24	27	64	35	37	11.5	14.5	3.5	4.4	-	3	3.2
<b>RB150</b>	47.5	122	24	27	97	58	37	11.5	19.5	3.5	4.4	-	3	3.2
<b>RB100</b>	71.5	139	44.5	46	89	-	57.1	20	9.6	5	4.8	69.8	M5	-
<b>RB250</b>	76	178	55.6	54	114	98.4	63.5	25.5	7.8	6.3	4.8	98.4	M6	-
<b>Tol.</b>	±0.2	±1	±0.2	±0.2	±0.5	±0.2	±0.2	±0.2	±0.5	±0.2	±0.2	±0.2	±0.2	±0.2

