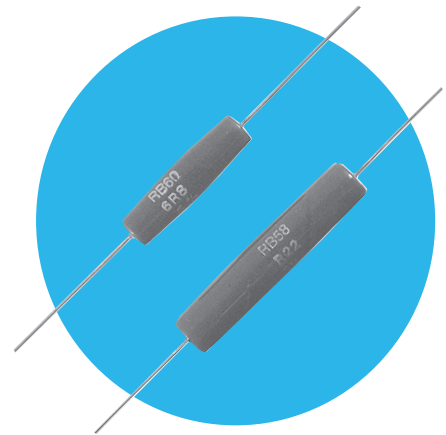


## Vitreous Enamelled Wirewound Resistors

### V700 (RB Style) Series

- Stability for harsh environments
- Overload characteristics ideal for protection circuits
- High stability and reliability
- High power dissipation for size
- Impervious lead free vitreous enamel coating



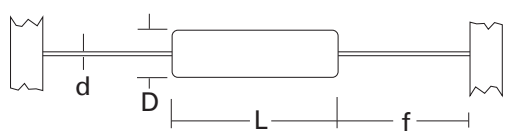
 All Pb-free parts comply with EU Directive 2011/65/EU (RoHS2)

### Electrical Data

		<b>V757 (RB57)</b>	<b>V759 (RB59)</b>	<b>V761 (RB61)</b>
Power rating at 25°C	watts	7	3.0	5.0
Resistance range	ohms	0R1 to 20K	0R1 to 10K	0R1 to 15K
Limiting element voltage	volts	200	100	160
TCR	ppm/°C	Typically: +75		Maximum +120
Resistance tolerance	%	5 Closer tolerances to special order		
Standard values		E24 preferred. Other values to special order		
Thermal impedance	°C/watt	44	88	58
Ambient temperature range	°C	-55 to 200		

### Physical Data

Maximum Dimensions (mm) and Weight (g)					
Type	L max	D max	f min	d max	Wt. Nom
<b>V757 (RB57)</b>	22.2	8	30	0.88	2
<b>V759 (RB59)</b>	12.7	5.6	30	0.88	1
<b>V761 (RB61)</b>	23	7.0	30	0.88	2



### Construction

A high purity ceramic substrate is assembled with force fit end caps to which are welded the termination wires.

The resistive element is wound on the substrate and welded to the caps; the vitreous enamel protective coating is then applied.

#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

V700 (RB Style) Series

**Terminations**

**Material** Copper clad steel wire, nickel plated and solder-coated.

**Strength** The terminations meet requirements of IEC 68.2.21.

**Solderability** The terminations meet the requirements of IEC 115-1, Clause 4.17.3.2.

Performance Data

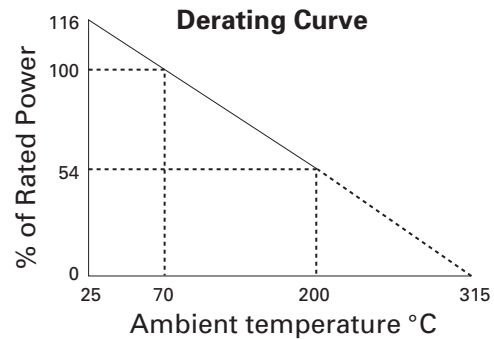
		Actual Performance	
		Maximum	Typical
Load at rated power: 1000 hrs	ΔR%	5	3.5
Dry heat: 1000 hours at 200°C	ΔR%	2	1
Shelf life: 12 mths at room temp	ΔR%	0.03	0.02
Derating from rated power at 25°C	ΔR%	See derating curve	
Short term overload	ΔR%	1.5	0.5
Climatic	ΔR%	0.5	0.2
Climatic category	ΔR%	55/200/56	55/200/56
Long term damp heat	ΔR%	0.05	0.02
Temperature rapid change	ΔR%	0.5	0.05
Resistance to solder heat	ΔR%	0.25	0.03
Vibration	ΔR%	0.25	0.05
Noise (μV/V in a decade of frequency)		zero	
Shock	ΔR%	0.2	0.05
Pulse handling		Data available by request	

Application Notes

The terminations should not be bent closer than 1.6mm from the body, and the recommended minimum bend radius is 1.2mm. If resistors are to dissipate full rated power, the terminations should not be soldered closer than 4mm from the body.

When cold, vitreous enamel has excellent insulation resistance. In common with all insulants the specific resistance of the enamel decreases with increase in temperature. Therefore, resistors operated at near maximum temperature cannot be classed as insulated and should not be used in contact with any conducting material.

Care must be taken when determining clearance distance between the resistor body and the printed circuit board or other components to ensure these are not over heated. Resistance is measured 6mm from the body.



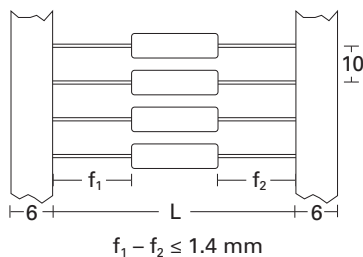
**Packaging**

For RB59 and RB61 the standard method of packaging is taped and Ammo Packed.

For RB57, the standard method of packaging is taped and reeled.

Alternative packaging available by request.

Type	L
V759	63
V757	73
V761	73



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**V700 (RB Style) Series**

## Ordering Procedure

Example: V757 (RB57) at 3.3 kilohms and 5% tolerance on a reel of 700 pieces –

**RB57 - 3K3 J I**

Type \_\_\_\_\_

Value (use IEC62 code) \_\_\_\_\_

Tolerance (use IEC62 code) \_\_\_\_\_

J	5%
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Packing \_\_\_\_\_

I	Ammo	RB59, RB61	1000/box	Standard
	Tape	RB57	700/reel	

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