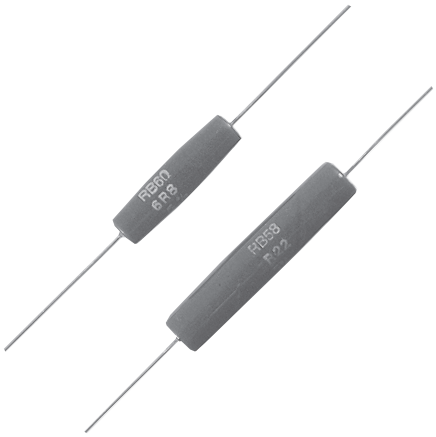
Resistors

Vitreous Enamelled Wirewound Resistors

OBSOLETE

Drop-in replacements are available see W20 series; W22 for RB57 and W21 for RB59

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 amended by (EU) 2015/863 (RoHS3)

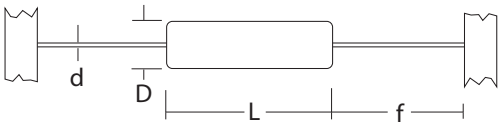
Electrical Data

		V757 (RB57)	V759 (RB59)
Power rating at 25˚C	watts	7	3.0
Resistance range	ohms	0R1 to 20K	0R1 to 10K
Limiting element voltage	volts	200	100
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
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
V757 (RB57)	22.2	8	30	0.88	2
V759 (RB59)	12.7	5.6	30	0.88	1



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.

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

V700 (RB Style) Series

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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

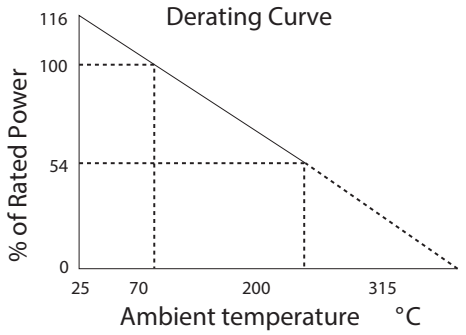
		Actual Performance	
		Maximum	Typical
Load at rated power: 1000 hrs	ΔR%	5	3.5
Dry heat: 1000 hours at 200˚c	ΔR%	2	1
Shelf life: 12 mths at room temp	ΔR%	0.03	0.02
Derating from rated power at 25˚C	ΔR%	See derating curve	
Short term overload	ΔR%	1.5	0.5
Climatic	ΔR%	0.5	0.2
Climatic category	ΔR%	55/200/56	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 freqency)		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.



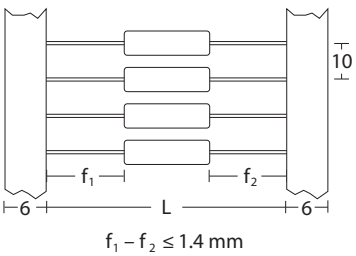
Packaging

For RB59 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



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Ordering Procedure

Example: RB57-3K3JI (V757 (RB57), 3.3 kilohms ±5%, Pb-free)

R	B	5	7	-	3	K	3		J	I	
1					2				3	4	

1 Type	2 Value	3 Tolerance	4 Packing & Termination Finish	
RB57	E24 = 3/4 characters R = ohms K = kilohms	J = ±5%	I = Standard packing & Pb-free	
RB59			PB = Standard packing & SnPb	
			V759 (RB59)	1000/box
			V757 (RB57)	700/reel