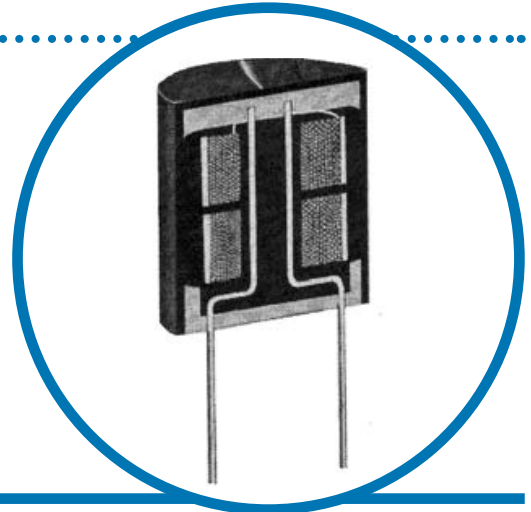


# Radial Lead Precision Wirewound Resistors

RB / RBR, HR / 4000, PC Series

**OBSOLETE**

- 0.1 to 0.6 watts
- Tolerance to  $\pm 0.01\%$
- 0.1 ohm to 3 meg ohms
- Approved to M, P, & R levels
- TCR's from  $\pm 2$  ppm/ $^{\circ}\text{C}$  to +6000 ppm/ $^{\circ}\text{C}$
- Meets or exceeds all applicable MIL-R-93 & MIL-R-39005 ratings



Miniature printed circuit resistors incorporate an uncommon number of production and design refinements to assure excellent resistance stability, close resistance tolerances, low TCR capabilities and high structural strength. To assure their high quality standards, premium grade selected wire is reverse pi wound with minimum stress on high temperature epoxy bobbins, permeated with a resilient inner cushion coat, and isolated from the external protection shell by a special dry air chamber.

To promote additional resistance stability and accurate initial calibrations all resistors are subjected to an extensive accelerated aging program. Weldable and/or solderable leads (a choice of lead material is available) are firmly anchored and bonded inside the bobbin for maximum structural strength. All resistor markings are impervious to printed circuit board cleaning solvents and lead spacing is sufficiently well controlled for automatic insertion on standard grid boards.

## Special Screening / Acceptance Test:

Special tests can be performed on a 100% or sample basis, to meet individual customer requirements. Some of the available non-destructive tests include:

- Short Time Overload
- Thermal Shock
- Mechanical Shock
- Vibration
- Temperature Coefficient of Resistance
- Radiographic Inspection

Each of these tests is designed to detect a spectrum of potential resistor defects. Consult the factory for recommendations and a quotation on special screening or acceptance tests to meet your needs.

## TCR and Temperature Data

Style	Resistance Range ( $\Omega$ )	Absolute TCR (ppm/ $^{\circ}\text{C}$ )	Operating Temperature Range ( $^{\circ}\text{C}$ )
All Styles	0.1 - 0.9	$\pm 90$	-65 to +145
	1.0 - 9.9	$\pm 30$	
	10 - 99.9	$\pm 15$	
	100 - 12M	$\pm 10$	

### 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.

## Electrical Specifications

IRC / Shallcross Style	MIL-R-93 / MIL-R-39005 Style	Wattage		Resistance (ohms)			Maximum Working Voltage
		MIL	Comm.	MIL		Comm.	
		125°C	85°C	Min.	Max.	Max.	
HR-8	RBR 71	0.125		0.1	150 K		300
4060 / PC8	RB 71	0.125	0.25	0.1	100 K	500 K	300
4065	RB 70	0.25	0.33	0.1	301 K	1.5 M	150
4061	---	---	0.25	---	---	800 K	300
HR 340	RBR 81*	0.100		10	250 K		300
HR 341	RBR 80**	0.100		10	120 K		150

\* Discontinued by DSCC, replaced with 09008

\*\* Approved to M and P level only

## Physical Dimensions (inches and (mm)):

IRC / Shallcross Style	MIL-R-93 / MIL-R-39005 Style	A	B	C	D	E
		Inches (mm) ± 0.032 (± 0.8)	Inches (mm) ± 0.025 (± 0.6)	Inches (mm) Minimum	Inches (mm) ± 0.002 (± 0.05)	Inches (mm) ± 0.010 (± 0.25)
HR-8	RBR 71	0.312 (7.9)	0.250 (6.3)	1.0 (25.4)	0.025 (0.6)	0.200 (5.0)
4060 / PC8	RB 71	0.312 (7.9)	0.250 (6.3)	1.0 (25.4)	0.025 (0.6)	0.200 (5.0)
4065	RB 70	0.500 (12.7)	0.375 (9.5)	1.0 (25.4)	0.032 (0.8)	0.200 (5.0)
4061	---	0.375 (9.5)	0.250 (6.3)	1.0 (25.4)	0.025 (0.6)	0.200 (5.0)
HR 340*	RBR 81	0.500 (12.7)	0.160 (4.0)	1.0 (25.4)	0.020 (0.5)	0.406 (10.3)
HR 341*	RBR 80	0.325 (9.3)	0.160 (4.0)	1.0 (25.4)	0.020 (0.5)	0.225 (5.7)

Standard Lead Material - Tinned copper weld

**Note:** Optional temperature coefficients available. Consult factory for details.

Figure 1. (Round)

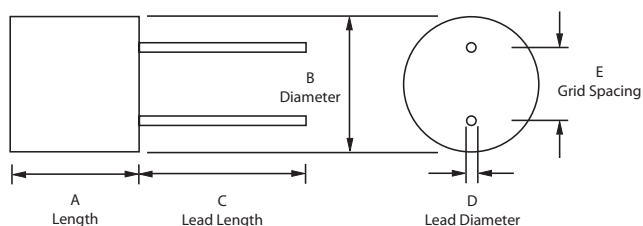
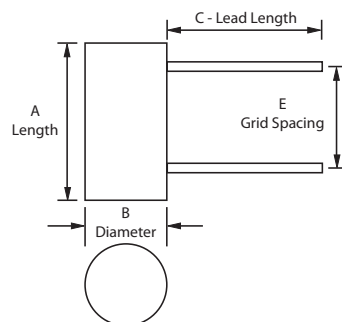


Figure 1. (Round)

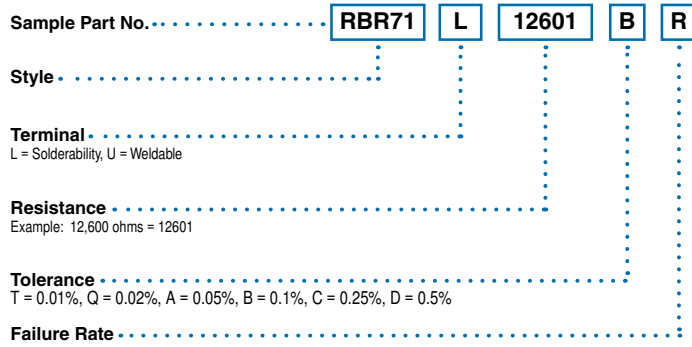


### General Note

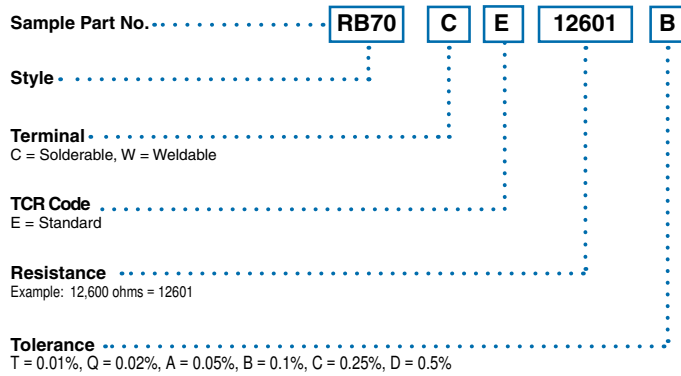
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## Ordering Data

### RBR Product Description

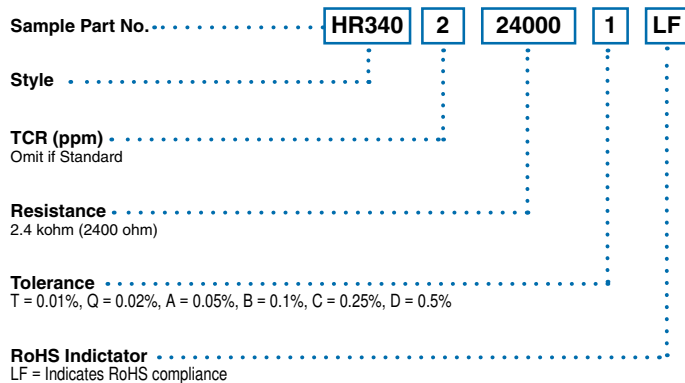


### RB Product Description



### Commercial Product Description

(HR / 4000, PC)



#### General Note

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