

# PRECISION WIREWOUND PRINTED CIRCUIT BOARD & RADIAL LEAD RESISTOR

### PC, HR, 4000 SERIES

## MIL-R-93 (RB) & MIL-R-39005 (RBR) & COMMERCIAL STYLES

- · 0.100 to 0.600 watts
- Tolerance to ±0.01% (25°C)
- · Non-inductive windings available
- TC's from ±2 ppm/°C to +6000 ppm/°C
- Meets or exceeds all applicable MIL-R-93 & MIL-R-39005 ratings

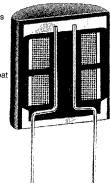
Miniature printed circuit resistors incorporate an uncommon number of production and design refinements to assure excellent resistance stability, close resistance tolerances, low TCR capabilities and high structural strength. To assure their high quality standards, premium grade selected wire is reverse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

#### Welded

Wire terminations made at top of resistor -Protects joints from solder bath damage -Body acts as heat sink providing additional termination protection

Custom designs available



Insulated stress relieved windings

Optional lead

Different lead spacing furnished on request

#### 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 test include:

-Short Time Overload

-Temperature Coefficient of Resistance

-Thermal Shock

-Radiographic Inspection

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

ELECTRICAL IRC/Shallcross	MIL-R-93/	Wattage Resistance (ohms) Maximum					
Style**	MIL-R-39005	MIL	Comm*	MIL	Comm*	Working	
* Table 1	Style	125°C	85°C	Max	Max	Voltage	
HR-8	RBR71	0.125	F147 2 347 15 14 34		150K	300	
4060/PC8	RB71	0.125	0.250	100K	500K	300	
4065	RB70	0.250					
4061	#C 0200 #FC 0458 #FC 10046 #FC #F	CONTRACTOR AND A CONTRACTOR	0.000		1.5M	150	
	5.60 - 000 - 60 - 00 -		0.250		800K	300	
4067					3M	300	
HR 340	RBR81	0.100	0.200	250K	500K	300	
HR 341	RBR80	0.100		eriteria de la composición de la compo		F101306 31 1100 1100	
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PC, HR, 4000 SERIES DIMENSIONS (Inches and (mm)):

IRC	A	В	C	D	E
Shallcross Style	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	0.312 (7.9)	0.250 (6.3)	1.0 (25.4)	0.025 (0.6)	0.200 (5.0)
4060/PC-8	0.312 (7.9)	0.250 (6.3)	1.0 (25.4)	0.025 (0.6)	0.200 (5.0)
4065	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)
4067	0.437 (11.1)	0.437 (11.1)	1.5 (38.0)	0.032 (0.8)	0.300 (7.8)
HR 340*	0.500 (12.7)	0.160 (4.0)	1.0 (25.4)	0.020 (0.5)	0.406 (10.3)
HR341*	0.325 (9.3)	0.160 (4,0)	1.0 (25.4)	0.020 (0.5)	0.225 (5.7)

Standard Temperature Coefficient  $\pm 10$ ppm/°C  $100\Omega$  up,  $\pm 15$ ppm/°C  $10\Omega$  to  $100\Omega$ ,  $\pm 30$ ppm/°C  $1\Omega$  to  $10\Omega$ ,  $\pm 90$ ppm/°C below  $1\Omega$ . Standard Lead Material - Tinned copper weld NOTE: Optional temperature coefficients available. Consult factory for details.

Fig. II (Radial)

\*Fig. II (Radial)

Lead Langth

\*Fig. II (Radial)

\*Fig. II (Radial)

\*Fig. II (Radial)

\*A

Lead Langth

\*Fig. II (Radial)

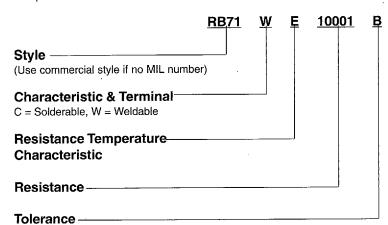
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#### **HOW TO ORDER**

Sample Part No.:



For commercial equivalents: Style - Resistance - Tolerance - TCR