

# PRECISION MIL-R-10509

Bradford Types NE, NC, CT and NA

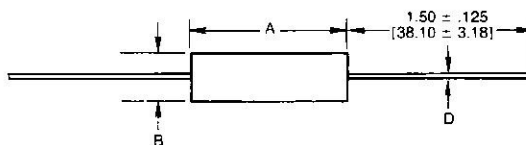
Military Type RN

## FEATURES

- Low noise and low inductance characteristics.
- Blue epoxy encapsulation over moisture resistant polyimide varnish undercoat.
- These resistors are provided with high purity copper leads in accordance with MIL-STD-1276. Two solder finishes are available: Electroplated 60/40 solder and hot dipped 60/40 solder.
- Special marking available.
- Controlled Temperature Coefficient:  $\pm 25$ ,  $\pm 50$  and  $\pm 100$  PPM/ $^{\circ}\text{C}$ .
- Excellent high frequency characteristics.
- Low voltage coefficient.

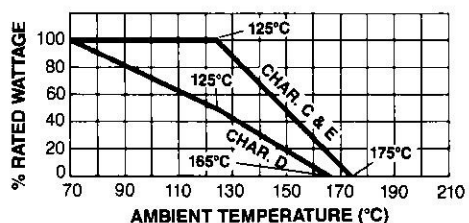
## ELECTRICAL PERFORMANCE

|               |               | WATTAGE RATING |       |                |            |       |                |                    |                    |                          |
|---------------|---------------|----------------|-------|----------------|------------|-------|----------------|--------------------|--------------------|--------------------------|
|               |               | Military       |       |                | Commercial |       |                |                    |                    |                          |
| Military Type | Bradford Type | 70°C           | 125°C | Voltage Rating | 70°C       | 125°C | Voltage Rating | Resistance Range   | Standard Tolerance | Temp. Coefficient PPM/°C |
| RN50E         | NE50          |                | 1/20  | 200            | 1/4        | 1/8   | 200            | 10Ω-499K           | .5, 1%             | 25                       |
| RN55E         | NE55          |                | 1/10  | 200            | 1/2        | 1/4   | 250            | 49.9Ω-1M           | .1, .25, .5, 1%    | 25                       |
| RN60E         | NE60          |                | 1/8   | 250            | 1          | 1/2   | 350            | 49.9Ω-1M           | .1, .25, .5, 1%    | 25                       |
| RN65E         | NE65          |                | 1/4   | 300            | 1          | 1/2   | 350            | 49.9Ω-1M           | .1, .25, .5, 1%    | 25                       |
| RN50C         | NC50          |                | 1/20  | 200            | 1/4        | 1/8   | 200            | 10Ω-499K           | .5, 1%             | 50                       |
| RN55C         | NC55          |                | 1/10  | 200            | 1/2        | 1/4   | 250            | 49.9Ω-1M           | .1, .25, .5, 1%    | 50                       |
| RN60C         | NC60          |                | 1/8   | 250            | 1          | 1/2   | 350            | 49.9Ω-1M           | .1, .25, .5, 1%    | 50                       |
| RN65C         | NC65          |                | 1/4   | 300            | 1          | 1/2   | 350            | 49.9Ω-1M           | .1, .25, .5, 1%    | 50                       |
|               | CT50          |                |       |                | 1/4        | 1/8   | 200            | 2Ω-499K            | 1%                 | 100                      |
| RN55D         | CT55          | 1/8            |       | 200            | 1/2        | 1/4   | 300            | 10Ω-1M             | 1%                 | 100                      |
| RN60D         | NA60          | 1/4            |       | 300            | 1          | 1/2   | 350            | 10Ω-1M             | 1%                 | 100                      |
| RN65D         | NA65          | 1/2            | 1/4   | 350            | 1          | 1/2   | 350            | 49.9Ω-1M<br>10Ω-2M | .5%<br>1%          | 100                      |



[Numbers in brackets indicate millimeters]

## DERATING



## DIMENSIONS

| Military Type | Bradford Type | A                                                 | B                                                   | D          |
|---------------|---------------|---------------------------------------------------|-----------------------------------------------------|------------|
| RN50E         | NE50          | .145 $\pm$ .015 [3.68 $\pm$ .38]                  | .066 $\pm$ .008 [1.68 $\pm$ .20]                    | .016 [.41] |
| RN55E         | NE55          | .245 $\pm$ .030 [6.22 $\pm$ .76]                  | .088 $\pm$ .010 [2.24 $\pm$ .25]                    | .025 [.63] |
| RN60E         | NE60          | .375 $\pm$ .025 [9.53 $\pm$ .63]<br>- .040 -1.01] | .135 $\pm$ .020 [3.43 $\pm$ .51]<br>- .005 - .13]   | .025 [.63] |
| RN65E         | NE65          | .560 $\pm$ .030 [14.2 $\pm$ .76]                  | .190 $\pm$ .007 [4.81 $\pm$ .18]<br>- .015 - .38]   | .025 [.63] |
| RN50C         | NC50          | .145 $\pm$ .015 [3.68 $\pm$ .38]                  | .066 $\pm$ .008 [1.68 $\pm$ .20]                    | .016 [.41] |
| RN55C         | NC55          | .245 $\pm$ .030 [6.22 $\pm$ .76]                  | .088 $\pm$ .010 [2.24 $\pm$ .25]                    | .025 [.63] |
| RN60C         | NC60          | .375 $\pm$ .025 [9.53 $\pm$ .63]<br>- .040 -1.01] | .135 $\pm$ .020 [3.43 $\pm$ .51]<br>- .005 - .13]   | .025 [.63] |
| RN65C         | NC65          | .560 $\pm$ .030 [14.2 $\pm$ .76]                  | .190 $\pm$ .007 [4.81 $\pm$ .18]<br>- .015 - .38]   | .025 [.63] |
|               | CT50          | .145 $\pm$ .015 [3.68 $\pm$ .38]                  | .066 $\pm$ .008 [1.68 $\pm$ .20]                    | .016 [.41] |
| RN55D         | CT55          | .235 $\pm$ .020 [5.97 $\pm$ .51]                  | .090 $\pm$ .008 [2.29 $\pm$ .20]                    | .025 [.63] |
| RN60D         | NA60          | .355 $\pm$ .020 [9.00 $\pm$ .51]                  | .148 $\pm$ .000 [3.76 $\pm$ .000]<br>- .023 - .580] | .025 [.63] |
| RN65D         | NA65          | .554 $\pm$ .021 [14.07 $\pm$ .53]                 | .190 $\pm$ .007 [4.83 $\pm$ .18]<br>- .015 - .38]   | .025 [.63] |