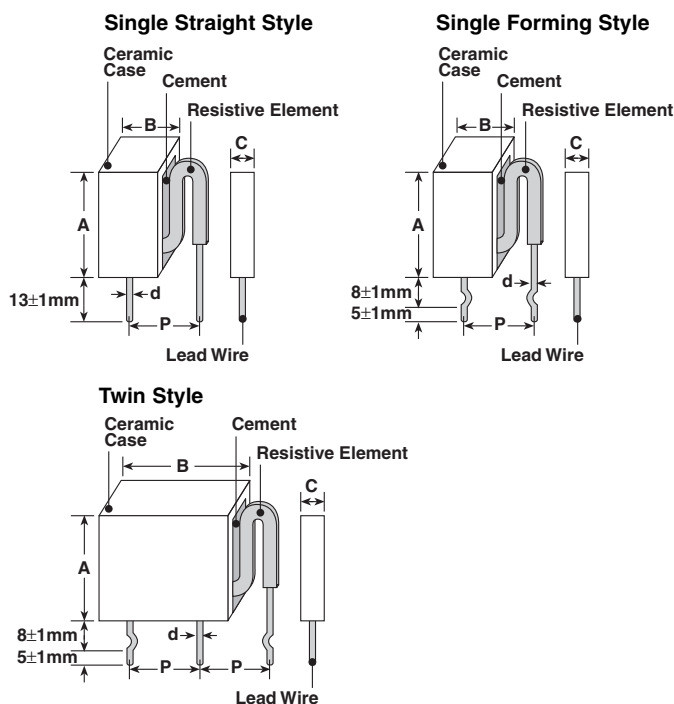


## features

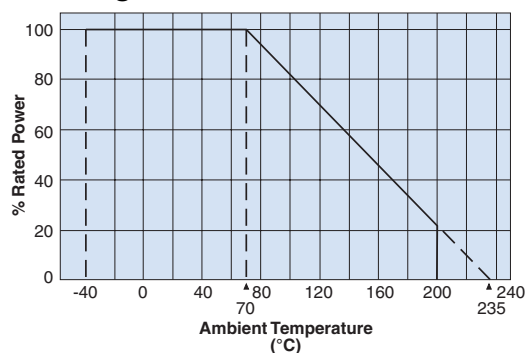
- Power type current detecting resistors
- Flame retardant resistors in ceramic case
- Automatic insertion for a 5mm pitch between terminals is applicable (26 type, 58 type)
- Low inductance
- Space saving
- Marking: Alpha/numeric marking
- Products with lead-free terminations meet EU RoHS requirements

## dimensions and construction



| Size Code | Dimensions inches (mm) |                        |                       |                       |                        |
|-----------|------------------------|------------------------|-----------------------|-----------------------|------------------------|
|           | A                      | B                      | C                     | d                     | P                      |
| BPR26     | .335±.04<br>(8.5±1.0)  | .512±.04<br>(13.0±1.0) | .157±.04<br>(4.0±1.0) | .024±.04<br>(0.6±1.0) | .354±.04<br>(9.0±1.0)  |
| BPR28     | .335±.04<br>(8.5±1.0)  | .512±.04<br>(13.0±1.0) | .157±.04<br>(4.0±1.0) | .031±.04<br>(0.8±1.0) | .354±.04<br>(9.0±1.0)  |
| BPR38     | .512±.04<br>(13.0±1.0) | .551±.04<br>(14.0±1.0) |                       | .031±.04<br>(0.8±1.0) | .354±.04<br>(9.0±1.0)  |
| BPR58     | .709±.04<br>(18.0±1.0) | .551±.04<br>(14.0±1.0) |                       | .031±.04<br>(0.8±1.0) | .354±.04<br>(9.0±1.0)  |
| BPR108    | .669±.06<br>(17.0±1.5) | 1.02±.06<br>(26.0±1.5) | .197±.04<br>(5.0±1.0) | .031±.04<br>(0.8±1.0) | .787±.04<br>(20.0±1.0) |
| BPR55     | .669±.06<br>(17.0±1.5) | 1.02±.06<br>(26.0±1.5) |                       | .031±.04<br>(0.8±1.0) | .394±.04<br>(10.0±1.0) |
| BPR77     | .787±.07<br>(20.0±1.8) | 1.02±.06<br>(26.0±1.5) |                       | .031±.04<br>(0.8±1.0) | .394±.04<br>(10.0±1.0) |

## Derating Curve



## ordering information

| New Part # | BPR | 5                       | 8                  | C                    | F                                                                             | R10                                                                                                                                                         | J                 |
|------------|-----|-------------------------|--------------------|----------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Type       |     | Power Rating            | Lead Wire Diameter | Termination Material | Packaging                                                                     | Nominal Resistance                                                                                                                                          | Tolerance         |
|            |     | 2: 2W<br>3: 3W<br>5: 5W | 6: ø0.6mm          | C: SnCu              | Nil: Straight lead<br>F: Forming<br>FT: Radial taping (BPR26FT, BPR58FT only) | 2 significant figures +1 multiplier. "R" indicates decimal on value <10Ω. All values less than 0.1Ω are expressed in mΩ with "L" as decimal. Ex: 20mΩ - 20L | J: ±5%<br>K: ±10% |
|            |     | 10: 10W                 | 8: ø0.8mm          |                      |                                                                               |                                                                                                                                                             |                   |
|            |     | 55: 5W+5W<br>77: 7W+7W  | Blank              |                      |                                                                               |                                                                                                                                                             |                   |

For further information on packaging, please refer to Appendix C.

## applications and ratings

| Part Designation | Power Rating | T.C.R.<br>(ppm/°C)<br>Max. | Resistance Range             |                    | Rated Ambient Temperature | Operating Temperature Range |  |  |
|------------------|--------------|----------------------------|------------------------------|--------------------|---------------------------|-----------------------------|--|--|
|                  |              |                            | J: ±5%<br>(E12)              | K: ±10%<br>(E12)   |                           |                             |  |  |
| BPR26            | 2W           | ±350*                      | 0.01Ω<br>0.1Ω - 0.68Ω        | 0.01Ω - 0.68Ω      | +70°C                     | -40°C to +200°C             |  |  |
| BPR28            | 2W           |                            |                              |                    |                           |                             |  |  |
| BPR38            | 3W           |                            | 0.01Ω, 0.1Ω - 1.0Ω           | 0.01Ω - 1.0Ω       |                           |                             |  |  |
| BPR58            | 5W           |                            |                              |                    |                           |                             |  |  |
| BPR108           | 10W          |                            | —                            | 0.05Ω, 0.1Ω - 1.0Ω |                           |                             |  |  |
| BPR55            | 5W+5W        |                            | 0.05Ω, 0.1Ω<br>0.22Ω - 0.47Ω | 0.03Ω - 0.47Ω      |                           |                             |  |  |
| BPR77            | 7W+7W        |                            |                              |                    |                           |                             |  |  |

\* Application range: The straight style of 0.018Ω or over

## standard resistance

| Resistance | 26, 28 |         | 38     |         | 58     |         | 108    |         | 55     |         | 77     |         |
|------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|
|            | J: ±5% | K: ±10% | J: ±5% | K: ±10% | J: ±5% | K: ±10% | J: ±5% | K: ±10% | J: ±5% | K: ±10% | J: ±5% | K: ±10% |
| 0.01       | ○      | ○       | ○      | ○       | ○      | ○       | —      | —       | —      | —       | —      | —       |
| 0.012      |        | ○       |        | ○       |        | ○       | —      | —       | —      | —       | —      | —       |
| 0.015      |        | ○       |        | ○       |        | ○       | —      | —       | —      | —       | —      | —       |
| 0.02*      |        | ○       |        | ○       |        | ○       | —      | —       |        |         |        |         |
| 0.022      |        | ○       |        | ○       |        | ○       | —      | —       |        |         |        |         |
| 0.027      |        | ○       |        | ○       |        | ○       | —      | —       |        |         |        |         |
| 0.03*      |        | ○       |        | ○       |        | ○       | —      | —       |        | ○       |        |         |
| 0.033      |        | ○       |        | ○       |        | ○       | —      | —       |        |         |        |         |
| 0.039      |        | ○       |        | ○       |        | ○       | —      | —       |        |         |        |         |
| 0.04*      |        | ○       |        | ○       |        | ○       |        |         |        |         |        |         |
| 0.047      |        | ○       |        | ○       |        | ○       |        |         |        |         |        |         |
| 0.05*      |        | ○       |        | ○       |        | ○       |        | ○       | ○      | ○       |        | ○       |
| 0.068      |        | ○       |        | ○       |        | ○       |        |         |        |         |        |         |
| 0.082      |        | ○       |        | ○       |        | ○       |        |         |        |         |        |         |
| 0.1        | ○      | ○       | ○      | ○       | ○      | ○       |        | ○       | ○      | ○       |        | ○       |
| 0.12       | ○      | ○       | ○      | ○       | ○      | ○       |        |         | ○      | ○       |        |         |
| 0.15       | ○      | ○       | ○      | ○       | ○      | ○       |        | ○       | ○      | ○       |        |         |
| 0.18       | ○      | ○       | ○      | ○       | ○      | ○       |        | ○       | ○      | ○       |        |         |
| 0.22       | ○      | ○       | ○      | ○       | ○      | ○       |        | ○       | ○      | ○       | ○      | ○       |
| 0.27       | ○      | ○       | ○      | ○       | ○      | ○       |        | ○       | ○      | ○       |        |         |
| 0.33       | ○      | ○       | ○      | ○       | ○      | ○       |        |         | ○      | ○       | ○      | ○       |
| 0.39       | ○      | ○       | ○      | ○       | ○      | ○       |        |         | ○      | ○       |        |         |
| 0.47       | ○      | ○       | ○      | ○       | ○      | ○       |        |         | ○      | ○       |        |         |
| 0.56       | ○      | ○       | ○      | ○       | ○      | ○       |        |         |        |         |        |         |
| 0.68       | ○      | ○       | ○      | ○       | ○      | ○       |        |         | —      | —       | —      | —       |
| 0.82       |        |         |        |         | ○      | ○       |        |         | —      | —       | —      | —       |
| 1.00       |        |         |        |         | ○      | ○       |        | ○       | —      | —       | —      | —       |

○ : Available

Blank : Please consult

— : Not available

\* Non standard E-12 Decade Value

## environmental applications

### Performance Characteristics

| Parameter                 | Requirement Δ R%                                        |         | Test Method                                                                                                                           |
|---------------------------|---------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------|
|                           | Limit                                                   | Typical |                                                                                                                                       |
| Resistance                | Within regulated tolerance                              | —       | 25°C (Measurement position: 10mm under from the case)                                                                                 |
| T.C.R.                    | Within specified T.C.R.                                 | —       | +25°C/-55°C and +25°C/+125°C<br>(Application range: the straight style of 0.018Ω over)                                                |
| Overload (Short time)     | ±2.0%                                                   | ±1.0%   | Rated power x 2.5 for 5 seconds (Application range: 0.05Ω & over)                                                                     |
| Resistance to Solder Heat | ±2.0%                                                   | ±1.0%   | 260°C ± 5°C, 10 seconds ± 1 second                                                                                                    |
| Moisture Resistance       | ±5.0%                                                   | ±3.0%   | 40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle                                                                      |
| Endurance at 70°C         | ±5.0%                                                   | ±3.0%   | 70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle                                                                                   |
| High Temperature Exposure | ±3.0%                                                   | ±2.0%   | +125°C, 100 hours                                                                                                                     |
| Resistance to Solvent     | No evidence of damage to protective coating and marking | —       | After immersing the sample in I.P.A for 60 seconds ± 10 seconds, the resistor surface should be rubbed with absorbent cotton 10 times |

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

12/18/12

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## KOA Speer:

[BPR58CR47J](#) [BPR58CR10J](#) [BPR58CR10K](#) [BPR58CR22K](#) [BPR58CFR15K](#) [BPR58CF22LK](#) [BPR58CFR68J](#)  
[BPR58C22LK](#) [BPR58CR56K](#) [BPR58CFTR22J](#) [BPR58CFTR47J](#) [BPR58CFR15J](#) [BPR58CFT1R0J](#) [BPR58CR27K](#)  
[BPR58CFT39LK](#) [BPR58CR12K](#) [BPR58CF33LK](#) [BPR58CFTR10J](#) [BPR58CFT56LK](#) [BPR58CFR22J](#)  
[BPR58CFTR12K](#) [BPR58CFTR33J](#) [BPR58C1R0J](#) [BPR58CF82LK](#) [BPR58CFT15LK](#) [BPR58CR18J](#) [BPR58CFTR18K](#)  
[BPR58CF10LK](#) [BPR58CR39J](#) [BPR58C47LK](#) [BPR58CFT10LK](#) [BPR58C68LK](#) [BPR58CFTR56K](#) [BPR58CFTR68J](#)  
[BPR58CFT82LK](#) [BPR58CFTR82K](#) [BPR58CFR18K](#) [BPR58CFR82K](#) [BPR58CF15LK](#) [BPR58CFR56K](#) [BPR58C12LK](#)  
[BPR58CFR27K](#) [BPR58CR33K](#) [BPR58CR56J](#) [BPR58CFTR56J](#) [BPR58CFR33J](#) [BPR58CFR39K](#) [BPR58CFTR39K](#)  
[BPR58CFT12LK](#) [BPR58CF39LK](#) [BPR58CF1R0K](#) [BPR58CFR82J](#) [BPR58CFR39J](#) [BPR58CF12LK](#) [BPR58CR82K](#)  
[BPR58CFR12K](#) [BPR58CFR47J](#) [BPR58CFTR33K](#) [BPR58CFTR18J](#) [BPR58C1R0K](#) [BPR58CF10LJ](#) [BPR58CR18K](#)  
[BPR58CFR10J](#) [BPR58CF1R0J](#) [BPR58CFT27LK](#) [BPR58CFTR27K](#) [BPR58CR68K](#) [BPR58CFT22LK](#)  
[BPR58CFT47LK](#) [BPR58CFTR12J](#) [BPR58C10LK](#) [BPR58CFT1R0K](#) [BPR58CFR12J](#) [BPR58CFT68LK](#) [BPR58CR15J](#)  
[BPR58CFTR39J](#) [BPR58C82LK](#) [BPR58C56LK](#) [BPR58CR39K](#) [BPR58CFTR15J](#) [BPR58CR12J](#) [BPR58CFTR15K](#)  
[BPR58CF68LK](#) [BPR58CR82J](#) [BPR58CFT33LK](#) [BPR58CR47K](#) [BPR58CR27J](#) [BPR58CF56LK](#) [BPR58CR68J](#)  
[BPR58C33LK](#) [BPR58CR33J](#) [BPR58CFR27J](#) [BPR58CF27LK](#) [BPR58CFTR82J](#) [BPR58CFR68K](#) [BPR58CFT10LJ](#)  
[BPR58C27LK](#) [BPR58CFR10K](#) [BPR58CFR22K](#) [BPR58CFTR47K](#)