

High Power Ceramic Cased Resistor BGRV, BWRV, BSRV





High Reliability for Automotive

Features

- Excellent in anti-pulse and inrush current
- · High power of up to 40 watts
- Uses flame-retardant insulated ceramic case
- Strong structure against electrical overload
- AEC-Q200 tested

Applications

- Pre-charge
- Inrush current prevention
- · Passive and active discharge

Applications and Ratings

| Туре | Power Rating | Pulse Energy Capacity | | Range (Ω) 24 | Style & Weight (g/1pcs) | | | | | | |
|-----------|-----------------|-----------------------------|---------|-----------------|-------------------------|------|------|------|------|------|--|
| | | (J)* | J±5% | K±10% | S** | N** | Q | QA | QC | QE | |
| BWRV3 | 3W | 11 | 1~390 | _ | 3.9 | 5.9 | _ | _ | _ | _ | |
| BWRV5 | 5W | 17 | 1~390 | _ | 5.1 | 7.2 | _ | _ | _ | _ | |
| BWRV7 | 7W | 52 | 1~390 | _ | 7.5 | 10.8 | _ | _ | _ | _ | |
| BWRV10 | 10W | 100 | 1~390 | _ | 10.2 | 15.0 | _ | _ | _ | _ | |
| BWRV15 | 15W | 100 | 1~390 | _ | 18.8 | _ | _ | _ | _ | _ | |
| BWRV20 | 20W | 180 | 1~390 | _ | 23.3 | _ | _ | _ | _ | _ | |
| BWRV40 | 40W | 549 | 4.3~220 | _ | _ | _ | 93.5 | _ | _ | _ | |
| BGRV5 | 5W | 16 | 10~390 | 5.1~9.1 | _ | _ | 6.2 | _ | _ | _ | |
| BGRV7 | 7W | 31 | 10~390 | 5.1~9.1 | _ | _ | 7.9 | _ | _ | _ | |
| BGRV10 | 10W | 60 | 10~390 | 5.1~9.1 | _ | _ | 10.7 | 14.5 | _ | _ | |
| BGRV15 | 15W | 60 | 10~390 | 5.1~9.1 | _ | _ | 18.6 | 24.6 | _ | _ | |
| BGRV20 | 20W | 95 | 10~390 | 5.1~9.1 | _ | _ | 22.1 | 28.1 | _ | _ | |
| BGRV30 | 30W | 161 | 10~390 | 5.1~9.1 | _ | _ | 59.6 | 72.4 | 84.6 | 73.9 | |
| BGRV30TQW | 3000 | 101 | 10~100 | 5.1~9.1 | _ | _ | 59.0 | | | | |
| BGRV40 | 40W | 226 | 10~390 | 5.1~9.1 | _ | _ | 70.6 | 85.2 | 95.6 | 84.9 | |
| BGRV40TQW | | | 10~100 | 5.1~9.1 | _ | _ | 70.0 | | | | |
| BSRV3 | 3W | _ | 430~27k | _ | 3.9 | 5.9 | _ | _ | _ | _ | |
| BSRV5 | 5W | _ | 430~51k | _ | 5.1 | 7.2 | 6.2 | _ | _ | _ | |
| BSRV7 | 7W | | 430~56k | _ | 7.5 | 10.8 | 7.9 | _ | _ | _ | |
| BSRV10 | 10W | | 430~75k | _ | 10.2 | 15.0 | 10.7 | 14.5 | _ | _ | |
| BSRV15 | 15W | _ | 430~56k | _ | 18.8 | _ | 18.6 | 24.6 | _ | _ | |
| BSRV20 | 20W | | 430~56k | _ | 23.3 | _ | 22.1 | 28.1 | _ | _ | |

^{*} Average value between $10\Omega\sim100\Omega$

^{**} S Style and N Style lead terminal products are not compatible with the AEC-Q200 vibration test by only soldered PCB mounting. When using the product, please take into account vibration measures such as fixing the product with silicone resin.

| Туре | Power Rating | Rated Ambient Temperature | Max. Working Voltage (V) | | | Max. Overload Voltage (V) | | | T.C.R. (x10 ⁻⁶ /K) | | | Operating Temperature |
|--------|-----------------|---------------------------------|--------------------------|--------|------|---------------------------|-----------|------|-------------------------------|------|------|--------------------------|
| | | | BGRV | BWRV | BSRV | BGRV | BWRV | BSRV | BGRV | BWRV | BSRV | Range |
| B□RV3 | 3W | +70°C +25°C | _ | E=√P•R | 300 | _ | E=√P•R•10 | 600 | _ | ±250 | ±300 | -40°C to +155°C |
| B□RV5 | 5W | | E=√P•R | | 350 | E=√P•R•10 | | 700 | | | | |
| B□RV7 | 7W | | | | 500 | | | 1000 | ±250 | | | |
| B□RV10 | 10W | | | | 700 | | | 1400 | | | | |
| B□RV15 | 15W | | | | 700 | | | 1400 | | | | |
| B□RV20 | 20W | | | | 750 | | | 1500 | | | | |
| BGRV30 | 30W | | | | | | | 1 | | | | |
| BGRV40 | 40W | | | _ | | | _ | _ | | _ | _ | |
| BWRV40 | 40W | | _ | E=√P•R | | _ | E=√P•R•10 | | _ | ±250 | | |

Rated voltage= √Power Rating × Resistance value or Max. working voltage, whichever is lower











