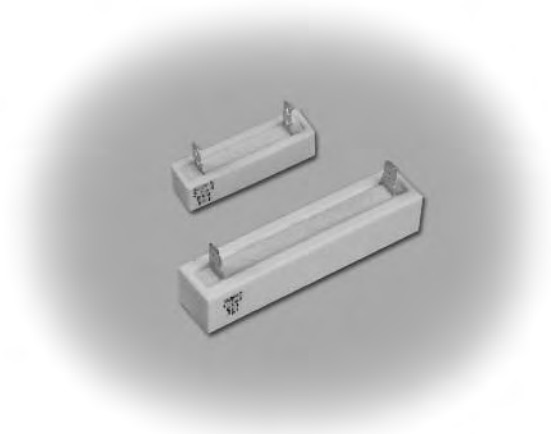
KOA SPEER ELECTRONICS, INC.

BGRV, BSRV

rectangular type wirewound resistors with glass core (for automotive)
rectangular type metal oxide film resistors (for automotive)



features

- High power resistors
- Uses flame-retardant insulated ceramic case
- Excellent in anti-pulse and in rush current
- Suitable for high reliable applications like automotives
- AEC-Q200 qualified.
- Products meet EU RoHS requirements

EU RoHS COMPLIANT

leaded resistors

applications and ratings

Type	Power Rating	Resistance Range (Ω) E24	
		J±5%	K±10%
BGRV7	7W	10~390	5.1~9.1
BGRV10	10W	10~390	5.1~9.1
BGRV15	15W	10~390	5.1~9.1
BGRV20	20W	10~390	5.1~9.1
BGRV30	30W	10~390	5.1~9.1
BGRV40	40W	10~390	5.1~9.1
BSRV5	5W	430~51k	—
BSRV7	7W	430~56k	—
BSRV10	10W	430~75k	—
BSRV15	15W	430~56k	—
BSRV20	20W	430~56k	—

Type	Power Rating	Rated Ambient Temperature	Max. Working Voltage (V)		Max. Overload Voltage (V)		T.C.R. (x10^{-6}/K)		Operating Temperature Range
			BSRV	BGRV	BSRV	BGRV	BSRV	BGRV	
BSRV5	5W	+70°C	350	$E=\sqrt{P•R}$	700	$E=\sqrt{P•R•10}$	±300	±250	-40°C to +155°C
B□RV7	7W		500		1000				
B□RV10	10W		700		1400				
B□RV15	15W	+25°C	700		1400		—		
B□RV20	20W		750		1500				
BGRV30	30W		—		—				
BGRV40	40W		—		—				

Rated voltage= $\sqrt{\text{Power Rating} \times \text{Resistance value}}$ or Max. working voltage, whichever is lower.
Please consult with us in advance about custom-made prodructs.

ordering information

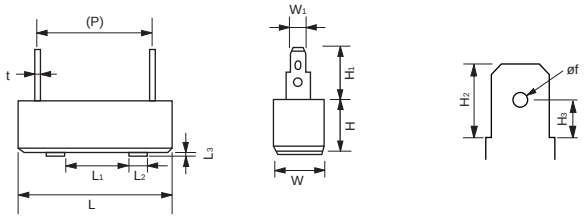
BGRV	30	T	Q	100	J
Type	**Power Rating**	**Termination[1] Surface Material**	**Style**	**Nominal Resistance**	**Resistance Tolerance**
BGRV: Wirewound (glass core) BSRV: Metal oxide film	See table	T: Sn	Q: Q style	J, K: 3 digits	J: ±5% K: ±10%

[1] Lead-Free plated terminal symbols.
T (Sn): Q style

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

dimensions and construction

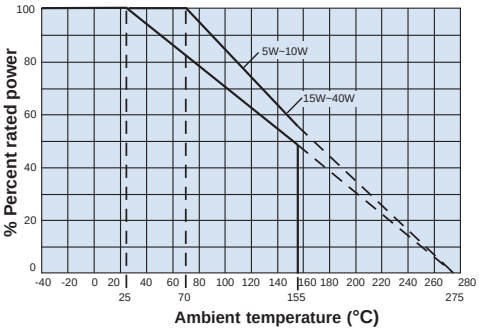
Q Style



Type	Dimensions millimeters L	L_1	L_2	L_3	W	W_1	H	H_1	H_2	H_3	(øf)	(P)	t
BSRV5Q	27±1.5	—	—	—	9.5±1.0	4.75	9.5±1.0	10.5±1.0	6.5	3.3	2.2	15.0	0.5
BGRV7Q, BSRV7Q	35±1.5											22.5	
BGRV10Q, BSRV10Q	48±1.5	25±1.0	4.5	1.0±0.5								35.0	
BGRV15Q, BSRV15G	48±1.5		7		12.5±1.2		12.5±1.5	13.0±1.0	6.35	3.15	1.4	34.5	0.8
BGRV20Q, BSRV20Q	63.5±2											49.5	
BGRV30Q	75±2.5	40±1.2	10		19.0±1.5	6.3	19.0±1.5	12.0±1.0	8.0	4.1	1.7	56.0	
BGRV40Q	90±2.5											71.0	

Parenthesized dimensions are for reference.

Derating Curve



environmental applications

Performance Characteristics

Parameter	Requirement Δ R ±% Limit	Typical	Test Method
Resistance	Within regulated tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/+125°C
Resistance to Solder Heat	1%: BSRV 2%: BGRV	1.0%: BGRV 0.5%: BSRV	350°C ± 10°C for 3.5 seconds
Moisture Resistance	3%: BGRV 5%: BSRV	2.0%: BGRV 2.0%: BSRV	Power rating x 1/10, 40°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance @ 25°C and 70°C	5%: BGRV, BSRV	2.5%: BGRV 2.5%: BSRV	Power according to the derating curve, 25°C and 70°C, 1000 hours, 1.5 hours ON/0.5 hours OFF cycle