

● **FEATURES • APPLICATIONS**

- ⊙ Extremely low resistance values.
- ⊙ Minimum inductance.
- ⊙ Low temperature coefficient.
- ⊙ Design for types of current sensing applications.
- ⊙ High power small size.
- ⊙ Series BVR match with the European standards and the requirements of ROHS.



● **DIMENSIONS**

Type	Dimensions (mm)			
	A±1.5	B±0.3	C±0.1	D±3.0
BVR-01	11.00	3.00	0.60	26.00
BVR-03	15.20	5.00	0.80	22.00
BVR-05	23.50	8.40	1.00	30.00
BVR-10	46.50	10.00	1.00	30.00

● **TECHNICAL SPECIFICATIONS**

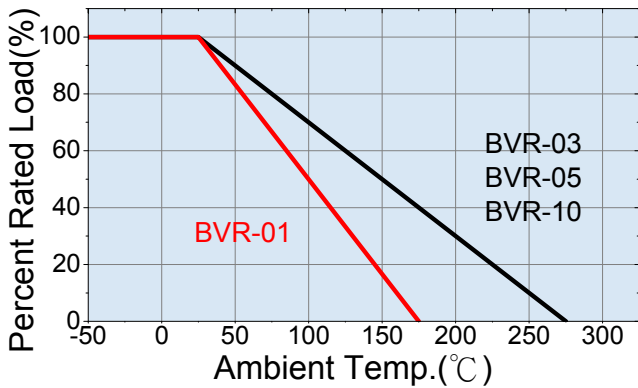
Type	Power Rating	Max working vol.	Max intermittence overload vol.	Insulation vol.	Rating Ambient temp	Operating temp. Rang	Resistance Rang(Ω)	Tolerances (%)
BVR-01	1.0W	$(P \times R)^{1/2}$	1000V	1000V	+25°C	-65°C/+175°C	0.001-0.1	±1
BVR-03	3.0W	$(P \times R)^{1/2}$	1000V	1000V		0.001-0.2	±2	
BVR-05	5.0W	$(P \times R)^{1/2}$	1000V	1000V		-65°C/+275°C		0.001-0.2
BVR-10	10.0W	$(P \times R)^{1/2}$	1000V	1000V		0.001-0.3		

※ $(P \times R)^{1/2}$: (Rated Power × Current Resistance)^{1/2}

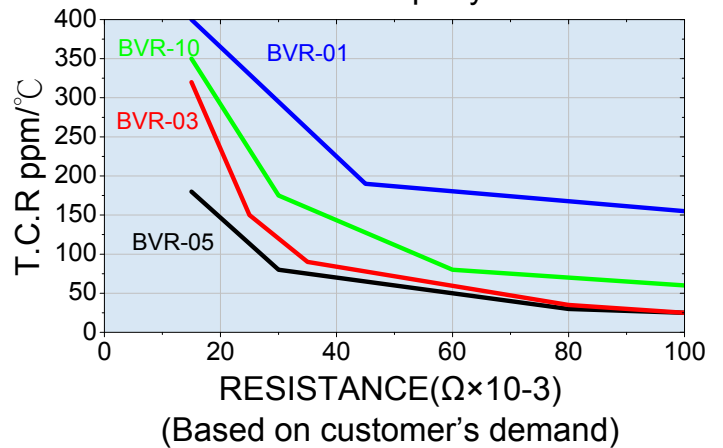
● **CHARACTERISTICS**

TEST ITEM	SPECIFICATION	TEST METOD
Thermal shock	± (0.2%+0.0005Ω) ΔR	-65°C to+125°C ,5cycles,15min at each extreme
Short time overload	± (0.5%+0.0005Ω) ΔR	5times of rated power (BVR01,03,05) ;10times of rated power (BVR10) for 5secs
Low temperature storage	± (0.2%+0.0005Ω) ΔR	-65°C for 24hrs
High temperature exposure	± (2.0%+0.0005Ω) ΔR	250hrs at +275°C (+175 °C for BVR01)
Dielectric withstanding vol.	± (0.1%+0.0005Ω) ΔR	1000V,1min
Insulation resistance	1000MΩ minimum	MIL-STD-202 method 302,100V
Moisture resistance	± (0.2%+0.0005Ω) ΔR	MIL-STD-202 method 106,100 7b not applicable
Shock ,specified pulse	± (1.0%+0.0005Ω) ΔR	MIL-STD-202 method 213,100g's for 6ms,10shocks
Vibration ,high frequency	± (0.1%+0.0005Ω) ΔR	Frequency varied 10 to 2000Hz,20g peak,2directions 6hrs each
Load life	± (2.0%+0.0005Ω) ΔR	2000hrs at rated power,+25°C 1.5hrs" On",0.5hrs "Off"
Bias humidity	± (1.0%+0.0005Ω) ΔR	+85°C ,85%RH,10%bias,1000hrs
Solder ability	95% coverage min	ANSI J-STD-002

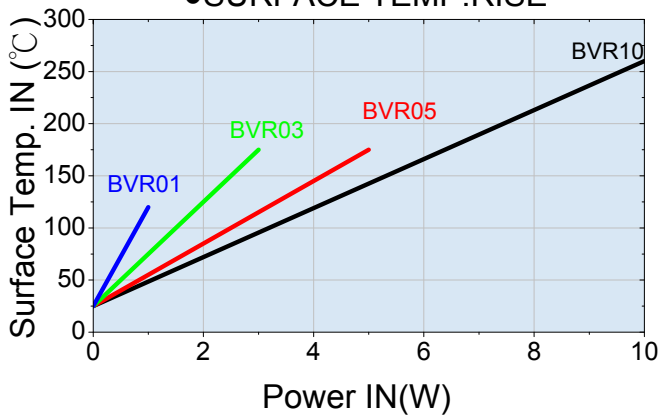
●Power Derating Curve



●Characteristic Property



●SURFACE TEMP. RISE



MATERIAL SPECIFICATIONS

Element : Self-supporting nickel-chrome alloy
(BVR10 also utilizes manganin)

Encapsulation : High temperature mold compound

Terminals : tinned copper

The improved T.C.R characteristics of these BVR models from -55°C to +125°C (reference to +25°C) are-as follows.

ORDERING CODE

BVR	01	0R04	F	TB																														
↓	↓	↓	↓	↓																														
Type	Power rating	Resistance	Tolerance	Packaging																														
High Reliability Alloy Resistors	<table border="1"> <tr><td>01</td><td>1W</td></tr> <tr><td>03</td><td>3W</td></tr> <tr><td>05</td><td>5W</td></tr> <tr><td>10</td><td>10W</td></tr> </table>	01	1W	03	3W	05	5W	10	10W	<table border="1"> <tr><td>0R05</td><td>0.005Ω</td></tr> <tr><td>0R010</td><td>0.010Ω</td></tr> <tr><td>0R130</td><td>0.130Ω</td></tr> </table>	0R05	0.005Ω	0R010	0.010Ω	0R130	0.130Ω	<table border="1"> <tr><td>F</td><td>± 1%</td></tr> <tr><td>G</td><td>± 2%</td></tr> <tr><td>J</td><td>± 5%</td></tr> </table>	F	± 1%	G	± 2%	J	± 5%	<table border="1"> <tr><td>TB</td><td>Taping Box</td></tr> <tr><td>TR</td><td>Taping Reel</td></tr> <tr><td>BU</td><td>Bulk</td></tr> <tr><td>F</td><td>F-TYPE</td></tr> <tr><td>M</td><td>M-TYPE</td></tr> </table>	TB	Taping Box	TR	Taping Reel	BU	Bulk	F	F-TYPE	M	M-TYPE
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