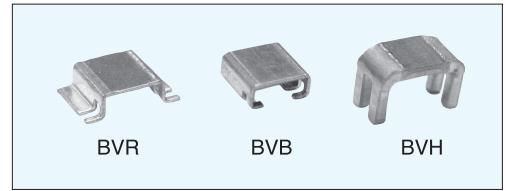


ISA-WELD SHUNT CHIP RESISTORS

BVR, BVB, BVH

Max. Current(Permanent) 160A / BVR 0.2mΩ
100A / BVB 0.5mΩ
100A / BVH 0.3mΩ



Type	Load Capacity (W) *	Resistance (Ω)	Tolerance (%)	Temp. Coefficient (20°C~60°C)	Internal Heat Resistance (°C/W)a-b	Thickness t (mm)
BVR-Z-R0002	5	0.2m	±1, ±2, ±5	±50ppm/°C	4	1.20
BVR-Z-R0003	5	0.3m			5	0.85
BVR-Z-R0005	5	0.5m			8	0.42
BVR-M-R0007	4	0.7m			12	0.44
BVR-M-R001	4	1m			14	0.35
BVR-I-R002	4	2m			14	0.55
BVR-I-R003	3	3m			21	0.36

Resistance Material Z : Zeranin
M : ISA Manganin
I : ISA-Ohm

Specification
Operating Temp. : -55°C~+170°C
Free Air Load Capacity : 0.5W
Solder Reflow : Max.255°C (t < 40sec)
Weight : 0.3g

CAUTION Referring to power derating curve. Proper measures for heat radiation hould should be taken.

Type	Load Capacity (W) *	Resistance (Ω)	Tolerance (%)	Temp. Coefficient (20°C~60°C)	Internal Heat Resistance (°C/W)a-b	Thickness t (mm)
BVB-Z-R0005	5	0.5m	±1, ±2, ±5	±50ppm/°C	8	0.45
BVB-M-R001	5	1m			15	0.33
BVB-I-R002	5	2m			14	0.55
BVB-I-R003	3	3m			21	0.36
BVB-I-R005	2	5m			33	0.36

Resistance Material Z : Zeranin
M : ISA Manganin
I : ISA-Ohm

Specification
Operating Temp. : -55°C~+170°C
Free Air Load Capacity : 0.5W
Solder Reflow : Max.255°C (t < 40sec)
Weight : 0.35g

CAUTION Referring to power derating curve. Proper measures for heat radiation hould should be taken.

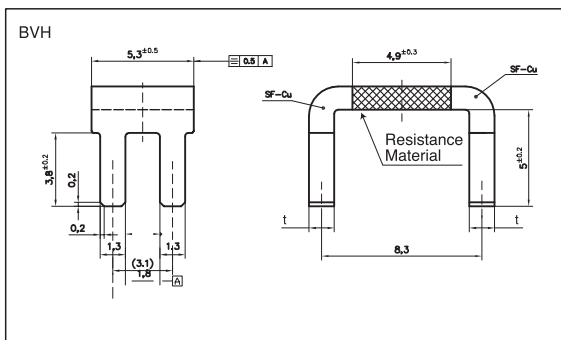
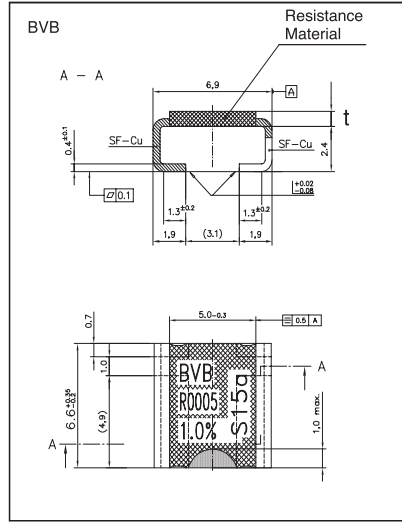
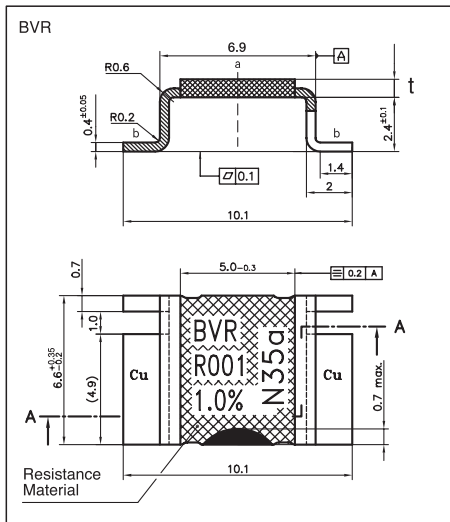
Type	Load Capacity (W) *	Resistance (Ω)	Tolerance (%)	Temp. Coefficient (20°C~60°C)	Internal Heat Resistance (°C/W)a-b	Thickness t (mm)
BVH-M-R0003	3	0.3m	±5	±100ppm/°C	4	1.42
BVH-M-R0005	3	0.5m			7	0.86
BVH-A-R001	3	1m			8	1.30
BVH-A-R002	3	2m			15	0.64

Resistance Material M : ISA Manganin
A : Alu-Chrom

Specification
Operating Temp. : -55°C~+170°C
Free Air Load Capacity : 0.5W
Solder Reflow : Max.255°C (t < 40sec)
Weight : 0.4g

CAUTION Referring to power derating curve. Proper measures for heat radiation hould should be taken.

Shape & Dimensions



PCN Corporation

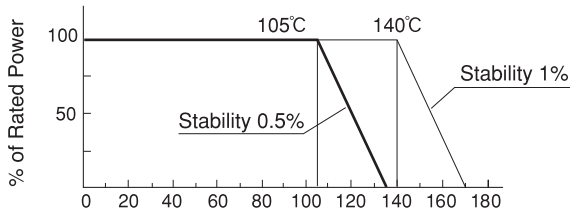
Sagamihara Business Office

4-3-17 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa-Pref., JAPAN 252-0231
Phone : 81-42-776-0931 Fax : 81-42-776-0940 E-mail : sales@pcn.co.jp

ISA-WELD SHUNT CHIP RESISTORS

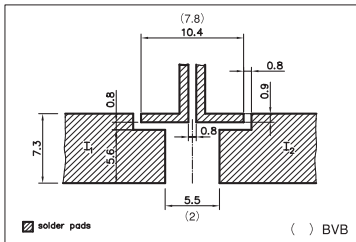
BVR, BVB, BVH

Power Derating Curve

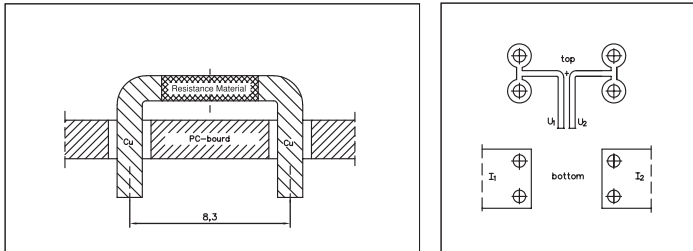


⚠ CAUTION b Terminal Temperature(°C)

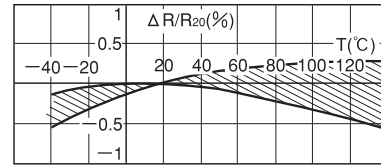
Proposal for PCB-Layout BVR, BVB



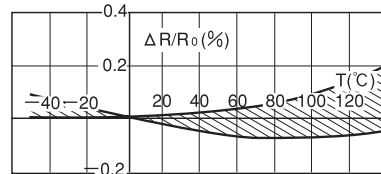
Proposal for PCB-Layout BVH



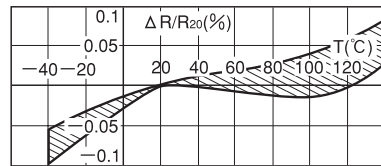
Resistance Change Versus Temp. (ISA-Manganin)



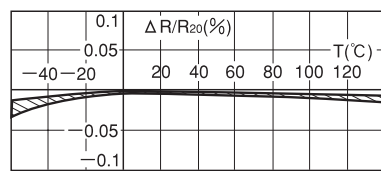
Resistance Change Versus Temp. (Alu-Chrom)



Resistance Change Versus Temp. (Zerinin)



Resistance Change Versus Temp. (ISA-Ohm)



How to order

BVB-Z-R0005 $0.5m\Omega$ $\pm 5\%$
 Type Resistance Tolerance

● Taping Specification

BVR : DIN EN 60286-3 24mm 1400pcs
 BVB : DIN EN 60286-3 16mm 1400pcs

● Standard Resistance(stock)

BVR-Z $0.5m\Omega \pm 1\%$
 BVR-M $0.7m\Omega \pm 1\%$
 BVR-I $1m\Omega \pm 1\%$
 BVR-I $2m\Omega \pm 1\%$

■ Performance

Parameters	Test Conditions	Specification
Thermal Shock	-65°C, 25°C, 125°C, 25°C 25cycles	±0.1%
Over load	5×Wattage Rating 5sec	±0.2%
Resistance to Solvents	IPA 3min	No damage
Low Temp. Storage and Operation	MIL-R-26E	±0.1%
Resistance to Soldering Heat	260°C 10sec	±0.2%
Moisture Resistance	Near 100%RH, +25°C, +65°C, -10°C 10cycles (10days)	±0.2%
Shock	50g's, 11ms	±0.2%
Vibration, High Frequency	MIL-STD-202 Method 204D-B	±0.2%
Load Life (Terminal Temp. Max:105°C)	1.5Hr ON 0.5Hr OFF 2000Hr	±0.5%
Load Life (Terminal Temp. Max:140°C)	1.5Hr ON 0.5Hr OFF 2000Hr	±1%
Storage Life at Elevated Temp.	MIL-STD-202 method 108A-F	±0.3%
High Temperature Exposure	140°C, 2000Hr	±0.5%
Current Noise	MIL-STD-202 method 308	±0.01%
Voltage Coefficient	MIL-STD-202 method 309	linearity error less than 120dB
Thermal EMF(μV/°C)	0~100°C	2μV/°C max
Frequency Characteristic	Inductance (1mΩ)	<3nH



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