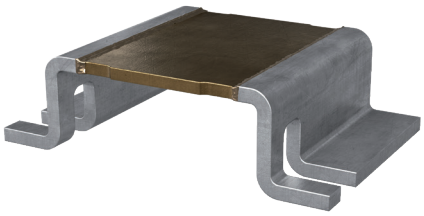
ISABELLENHÜTTE

BVR-PW (4026)

ISA-WELD® PRECISION RESISTOR



FEATURES

- Power rating up to 5 W
- Heavy copper connectors
- Excellent long-term stability
- Listed in European Preferred Parts List (EPPL) in Part 2
- SnPb tinned contacts

APPLICATIONS

- Aerospace & Defense
- Current sensor for power hybrid modules
- High current measurement in DC/DC front-end converters and power distribution units

Technical data *

Resistance values	**mOhm**	0.2 to 3	
Tolerance	**%**	0.5 / 1	
Temperature coefficient	**ppm/K**	**<1 mOhm**	**≥1 mOhm**
-55 °C to +22 °C		-100; +0	-60; +0
+22 °C to +170 °C		±30	±30
+22 °C to +60 °C		±20	±50
Applicable temperature range	**°C**	-65 to +170	
Power rating $P_{100\,°C}$	**W**	up to 5	
Internal heat resistance (R_{thi})	**K/W**	from 4	
Inductance	**nH**	<3	
Stability (nominal load) deviation after 2000h, T_K = Terminal temperature	**%**	<0.5 (T_K=100 °C)	

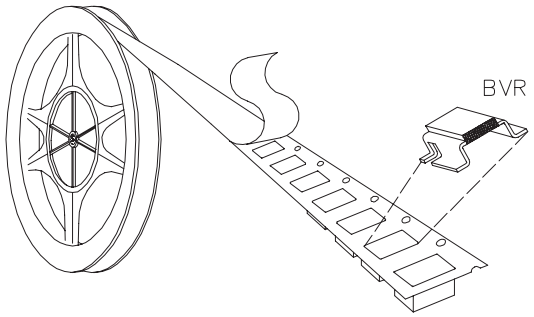
*For detailed information see table on page 2

Recommended solder profile

Reflow-, IR-soldering				
Temperature	**°C**	260	255	217
Time	**sec**	peak	40	90

Packaging information

Specification		DIN EN 60286-3
Tape width	**mm**	24
Reel size	**inch**	13
Form of delivery		
Tape	**pcs**	up to 250
Tape & Reel	**pcs**	>250



Available standard resistance values and tolerances *

Type	**Value [mΩ]**	**R_{thi} [K/W]**	**$P_{T_K > 100°C}$ $T_K = 170°C - (R_{thi} \times P)$**
BVR-Z-R0002-0.5-PW	0.2	4	5
BVR-Z-R0002-1.0-PW	0.2	4	5
BVR-Z-R0003-0.5-PW	0.3	5	5
BVR-Z-R0003-1.0-PW	0.3	5	5
BVR-Z-R0004-0.5-PW	0.4	7	5
BVR-Z-R0004-1.0-PW	0.4	7	5
BVR-Z-R0005-0.5-PW	0.5	8	5
BVR-Z-R0005-1.0-PW	0.5	8	5
BVR-I-R001-0.5-PW	1	9	5
BVR-I-R001-1.0-PW	1	9	5
BVR-I-R002-0.5-PW	2	14	4
BVR-I-R002-1.0-PW	2	14	4
BVR-I-R003-0.5-PW	3	21	3
BVR-I-R003-1.0-PW	3	21	3

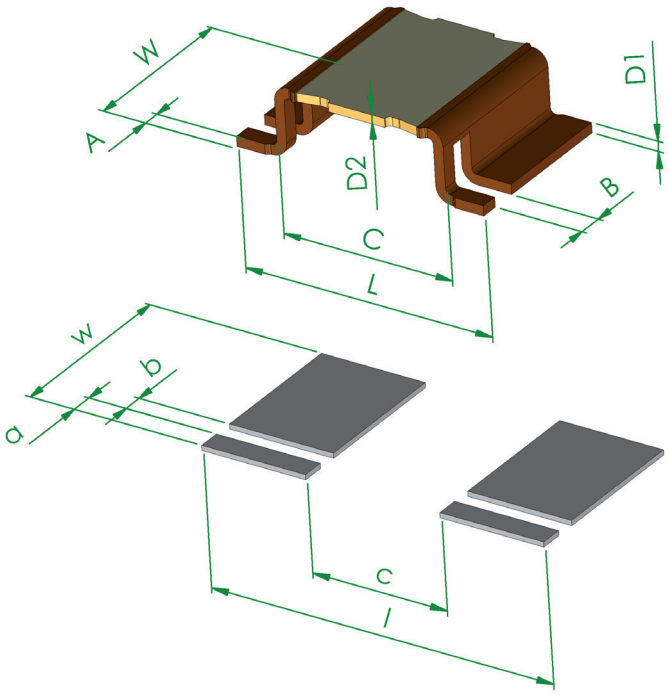
Material type I=ISAOHM®, Z=ZERANIN®

Ordering code

BVR - Z - R0005 - 1.0 - PW

- SnPb tinned contacts, space grade
- Tolerance
- Resistance value [Ohm] / „R“ represents decimal point
- Material (ZERANIN®)
- Type

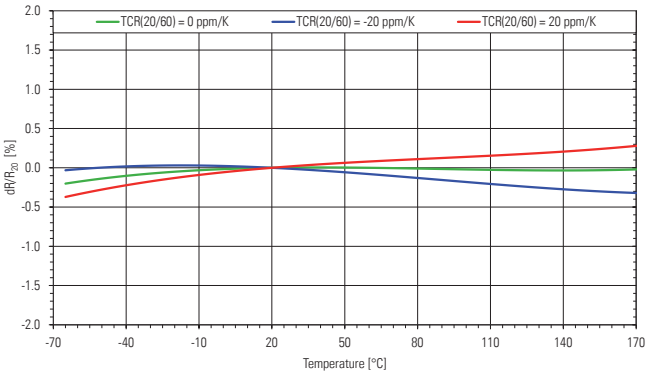
Mechanical dimensions and pcb-layout proposal (Reflow-soldering) [mm] // Z-YF-148e



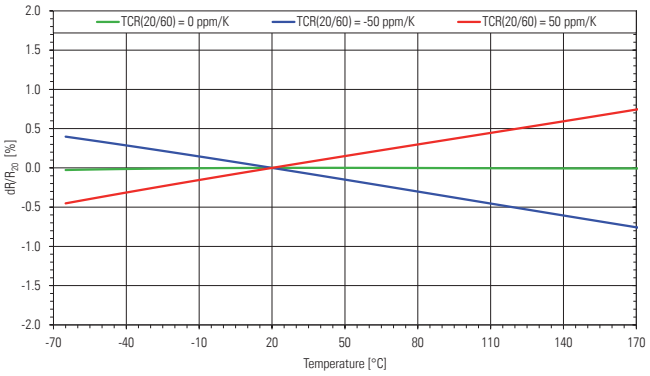
Type:	A	B	C	D1	D2	L	W
BVR-Z-R0002	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.4 ±0.1	1.2 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-Z-R0003	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.4 ±0.1	0.85 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-Z-R0004	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.55 ±0.1	0.55 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-Z-R0005	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.4 ±0.1	0.42 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-I-R001	0.7 ±0.1	1.0 ±0.1	7.42 ±0.2	0.66 ±0.1	1.1 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-I-R002	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.4 ±0.1	0.55 ±0.1	10.1 ±0.2	6.6 +0.35/-0.2
BVR-I-R003	0.7 ±0.1	1.0 ±0.1	6.9 ±0.2	0.4 ±0.1	0.36±0.1	10.1 ±0.2	6.6 +0.35/-0.2

Solder Pad type:	a	b	c	l	w
BVR	0.9	0.8	5.5	10.6	7.3

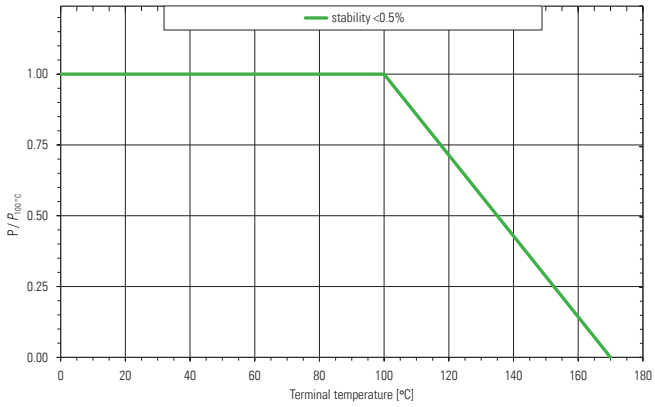
Temperature dependence of the electrical resistance of ZERANIN® resistors



Temperature dependence of the electrical resistance of ISAOHM resistors



Power derating curve at 100 °C



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