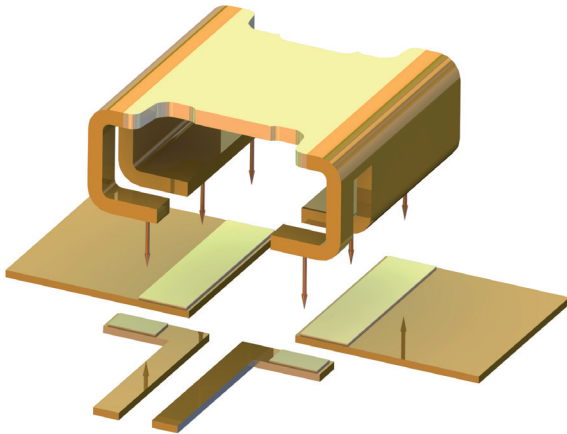




ISA-WELD® // PRECISION RESISTORS

BVB Size 2725



Features

- 5 W permanent power
- 4-terminal connection
- Excellent long-term stability
- Ideal for mounting on DCB/IMS substrate
- AEC-Q200 qualified
- RoHS 2011/65/EU compliant



Applications

- Current sensor for power hybrid applications
- High current applications for the automotive market
- Frequency converters
- Power modules

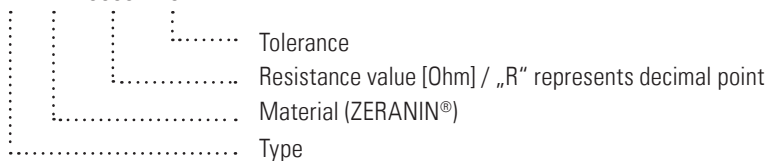
Technical data

		BVB
Resistance values ¹	mOhm	0.2 to 5
Tolerance	%	1 / 5
Temperature coefficient (20-60 °C)	ppm/K	from 20
Applicable temperature range	°C	-55 to +170
Power rating P_{100 °C}	W	up to 5
Power rating P_{70 °C}	W	up to 12
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) <1.0 % (T _K =140 °C) in covered condition

¹ For detailed information see table on page 3

Ordering code

BVB - Z - R0005 - 1.0



Warranty // All information regarding the suitability, workability and applicability of our products, all technical advice and other information are provided to the best of our knowledge and belief, but shall not discharge the buyer from his own examinations and tests. This document is subject to change without notice.



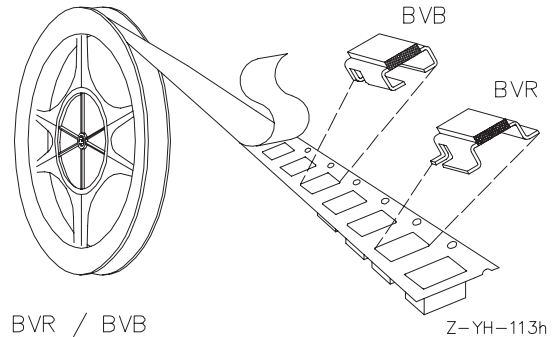
BVB // 2725

Recommended solder profile

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

Tape and reel information

Specification	DIN EN 60286-3			
Tape width	mm	16		
Reel size	inch	13		
Parts per reel	pcs	1400		
Packaging weight	g	439		



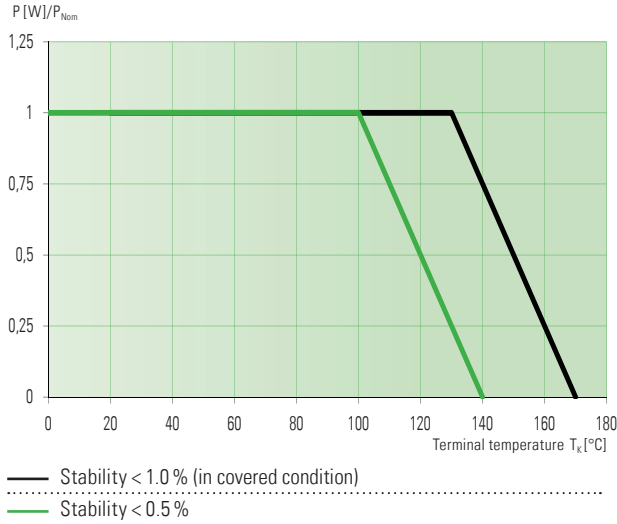
Specification

Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-55 °C to +150 °C)	±0.5 %
Low Temperature Storage and Operation	-65 °C for 24 h	±0.1 %
Resistance to Soldering Heat	260 °C for 10 sec / 8h steam aging	n.a.
Moisture Resistance	MIL-STD-202 method 106	±0.1 %
Mechanical Shock	100 g, 6 ms half sine	±0.2 %
Vibration, High Frequency	20 g, 10-2000 Hz	±0.2 %
Operational Life	2000 h, TK max at nominal load	±1.0 %, TK = 140 °C (in covered condition)
High Temperature Exposure	2000 h / 170 °C	±1.0 % (in covered condition)
Bias Humidity	+85 °C, 85 r.F., 1000 h	±0.5 %

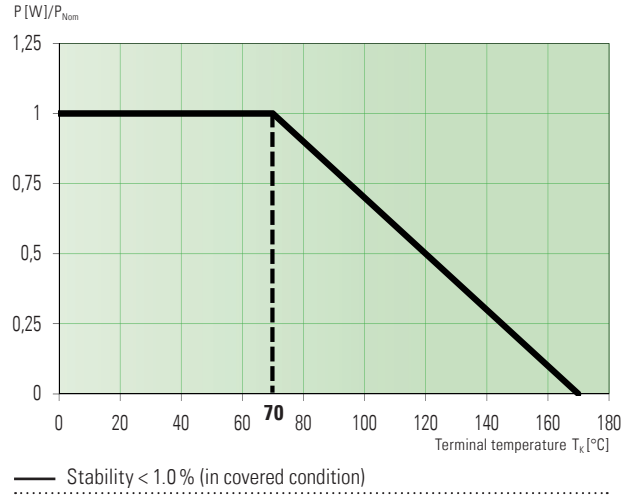


BVB // 2725

Power derating curve at 100 °C
Example: BVB-Z-R0005



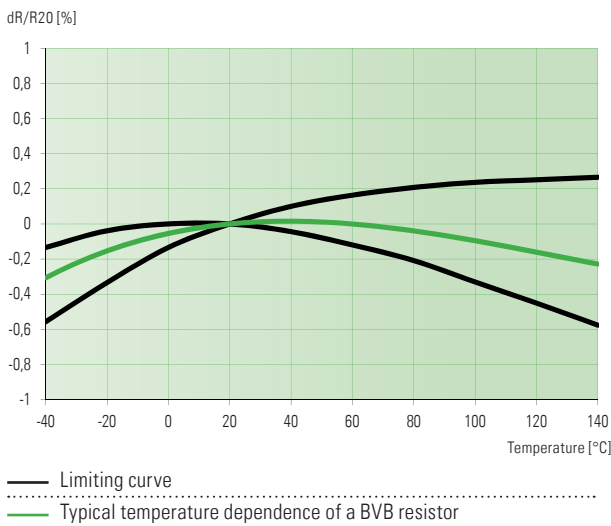
Power derating curve at 70 °C
Example: BVB-I-R002



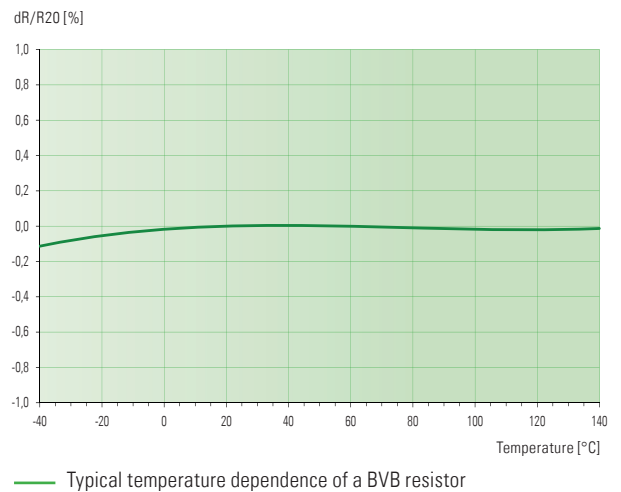
Type	Value [mΩ]	Thickness [mm] D	R _{thi} [K/W]	TC [ppm/K]	P _{100 °C} [W]	P _{70 °C} [W]
BVB-Z-R0002	0.2	1.20	4	< 20	5	12
BVB-Z-R0005	0.5	0.45	8	< 20	5	9
BVB-M-R001	1.0	0.33	15	< 50	5	7
BVB-I-R002	2.0	0.55	14	< 50	4	7
BVB-I-R003	3.0	0.36	21	< 50	3	5
BVB-I-R004	4.0	0.36	28	< 50	2	4
BVB-I-R005	5.0	0.36	33	< 50	2	3

Material type I=ISAOHM®, M=MANGANIN®, Z=ZERANIN®30

Temperature dependence of the electrical resistance of MANGANIN® resistors



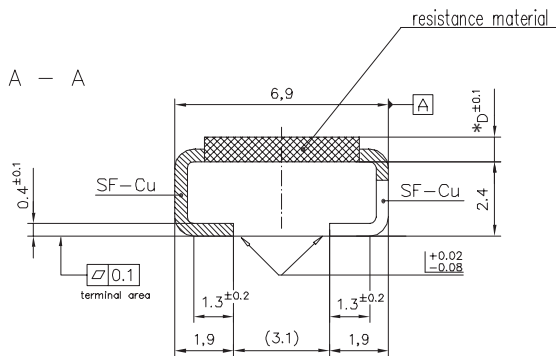
Temperature dependence of the electrical resistance of ZERANIN® 30 resistors



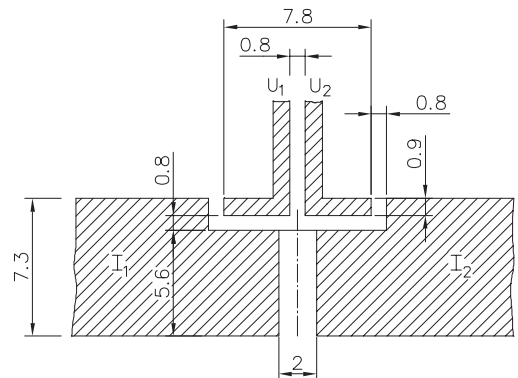


BVB // 2725

Mechanical dimensions [mm]

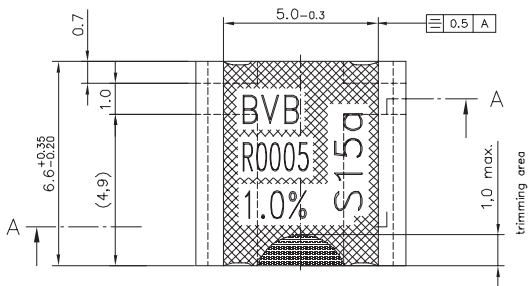


Pcb-layout proposal (Reflow-soldering) [mm]



▨ solder pads

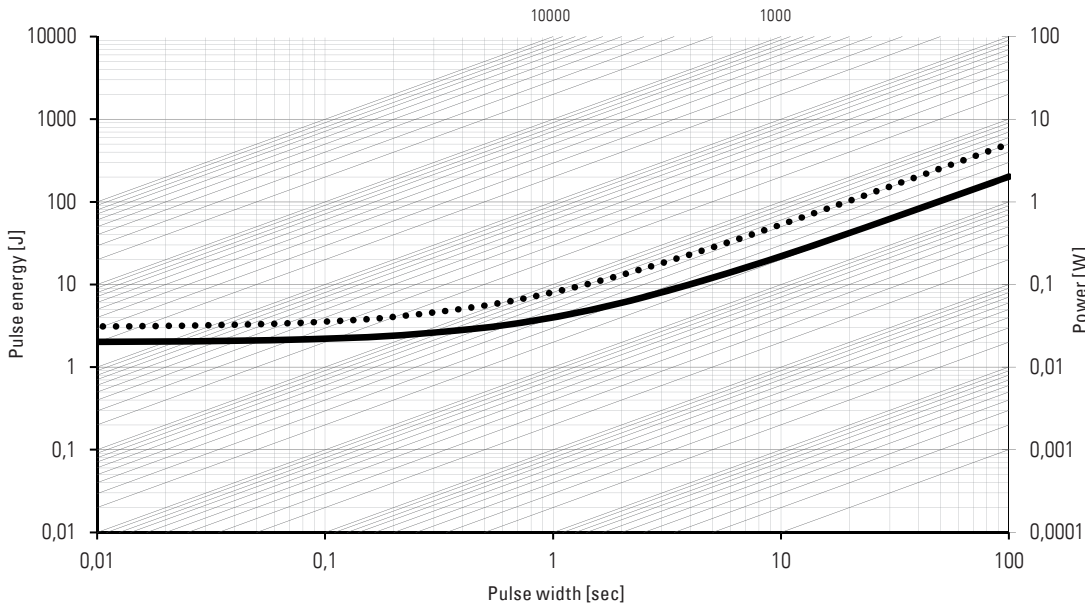
Z-YS-120



* D: See table on page 3

Z-YP-133

Maximum pulse energy respectively pulse power for permanent operation



- This curve is valid for the resistance value R0005 only.
 - This curve is valid for the resistance value R005 only.
- For other values the area in between the max. and min curve is valid.

