



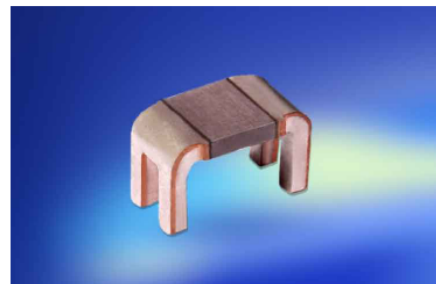
ISA-WELD® - Präzisionswiderstände / precision resistors

TECHNISCHE DATEN / TECHNICAL DATA		
Widerstandswerte (mOhm)	Resistance values (mOhm)	0.3, 0.5, 1 mOhm
Toleranz	Tolerance	5 %
Temperaturkoeffizient	Temperature coefficient (tcr)	< 50 ppm/K (20 °C to 60 °C) *
Temperaturbereich	Applicable temperature range	-55 °C to +170 °C
Belastbarkeit	Load capacity	3 W
Innerer Wärmewiderstand (R _{thi})	Internal heat resistance (R _{thi})	< 10 K/W
Induktivität	Inductance	< 3 nH
Stabilität (Nennlast) Abweichung T _K = Kontaktstellentemperatur Stability (nominal load) deviation T _K = Terminal temperature		< 0.5 % nach/after 2000 h (T _K = 105°C) < 1.0 % nach/after 2000 h (T _K = 140°C)

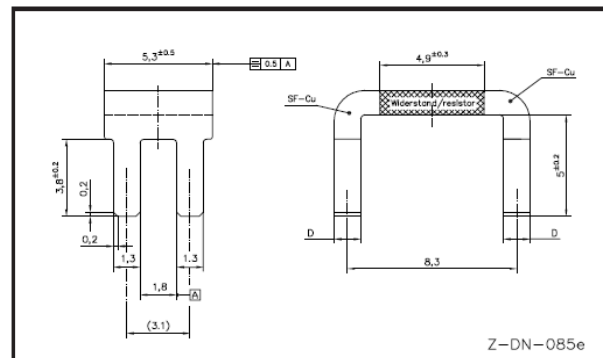
* gültig für /valid for 1 mOhm

MERKMALE / FEATURES

- 3 Watt Dauerleistung
- 3 Watt permanent power
- Dauerströme bis 100 A (0.3 mΩ)
- Continuous current load up to 100 Amps (0.3 mΩ)
- Vierleiter Widerstand
- Four terminal-configuration
- Sehr gute Langzeitstabilität
- Excellent long term stability
- Massive Kupferanschlüsse
- heavy copper connectors
- Hoher Temperaturbereich -55 bis +170 °C durch spezielle Bauform
- High application temperature range - 55 to +170 °C due to special design
- Geeignet für Löttemperaturen bis 350 °C / 30 sek
- Max. solder temperature up to 350 °C / 30 sec



Bauform/Size 3820



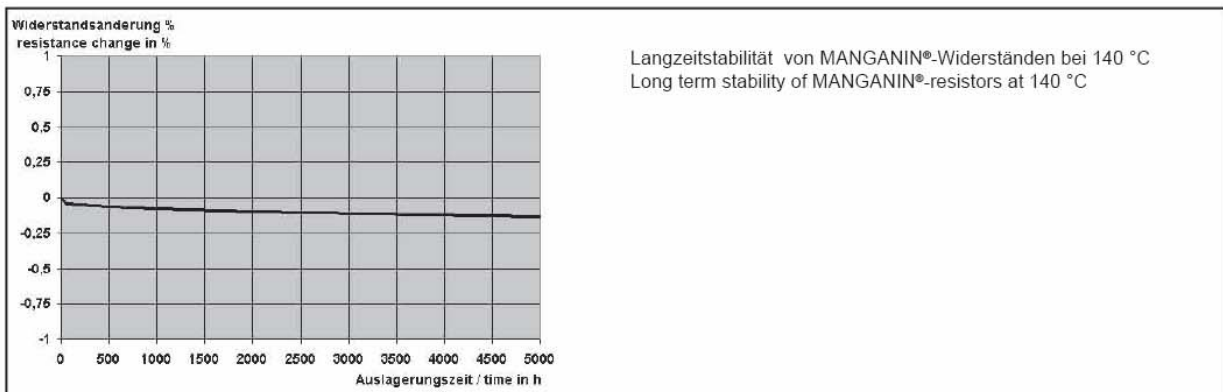
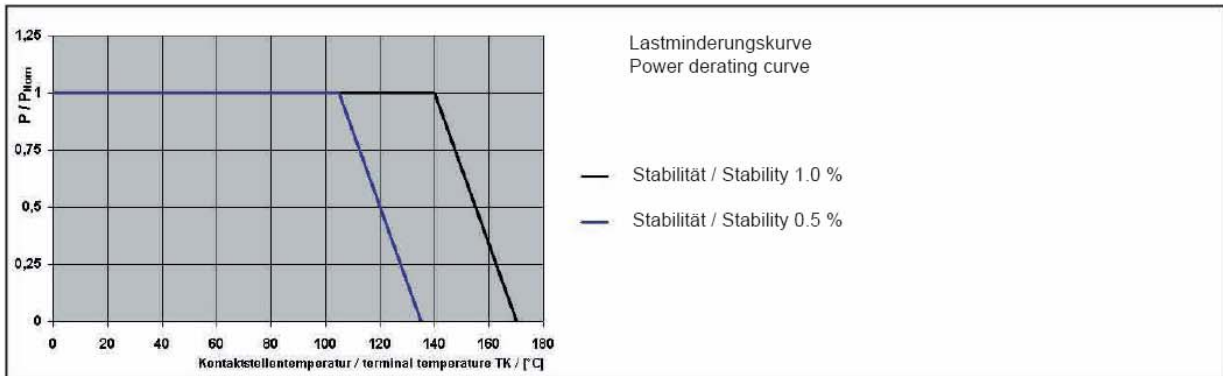
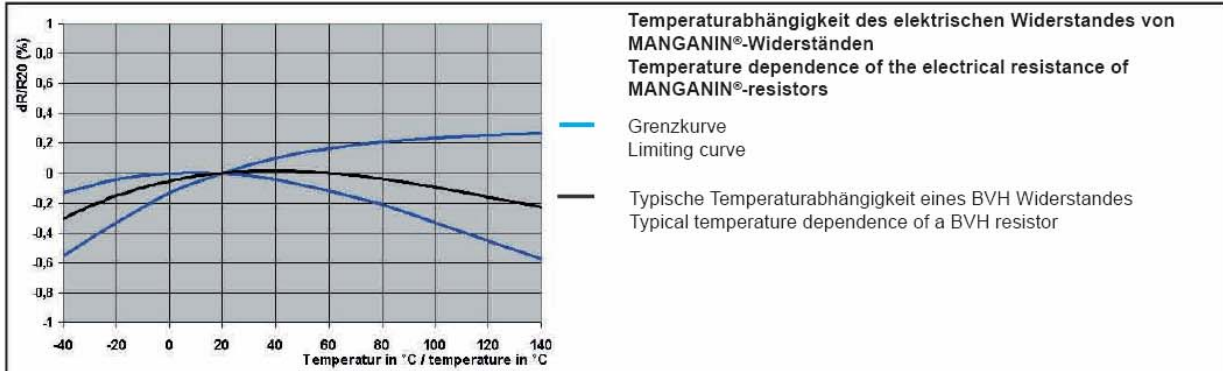
APPLIKATIONEN / APPLICATION

- Hochstromanwendungen in der Automobiltechnik
- High current applications for the automotive market
- Frequenzrichter
- Frequency converters
- Leistungsmodul
- Power modules

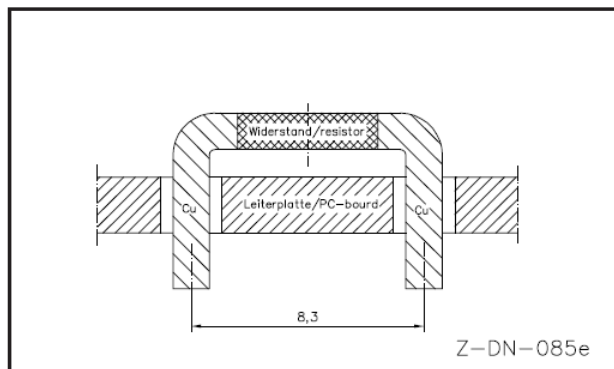
Typ	Wert	Material	Dicke (D)
Type	Value	Material	Thickness (D)
BVH-M-R0005	0.5 mOhm	MANGANIN®	0.86 mm
BVH-M-R001	1 mOhm	MANGANIN®	0.43 mm
BVH-A-R001	1 mOhm	Aluchrom	1.30 mm



TK, Lastminderung und Langzeitstabilität / TCR, power derating and long term stability



Montagehinweis Proposal for mounting



Lötprofil Vorschlag / Recommended solder profile			
Wellenlöten			
Wave soldering			
Temperatur	260 °C	255 °C	217 °C
Zeit (s)	Peak	40	90
<p>RoHS 2002/95/EG konform seit Produktstart. Ausführliche Informationen erhalten Sie auf unserer Homepage: www.isabellenhuette.de</p> <p>RoHS 2002/95/EC compliance since product launch. For more information please visit our website: www.isabellenhuette.de</p>			

VERPACKUNG / PACKAGING
Schüttgut in Folienbeutel evakuiert und rückbegast
Bulk goods in plastic bags sealed filled with dry Nitrogen

BESTELLBEZEICHNUNG / ORDERING CODE			
BVH-M-R0005-5.0			
Typ	Material	Widerstandswert	Toleranz
Type	Material	Resistance value	Tolerance
BVH	MANGANIN®	0.5 mOhm	5 %

Gewährleistung

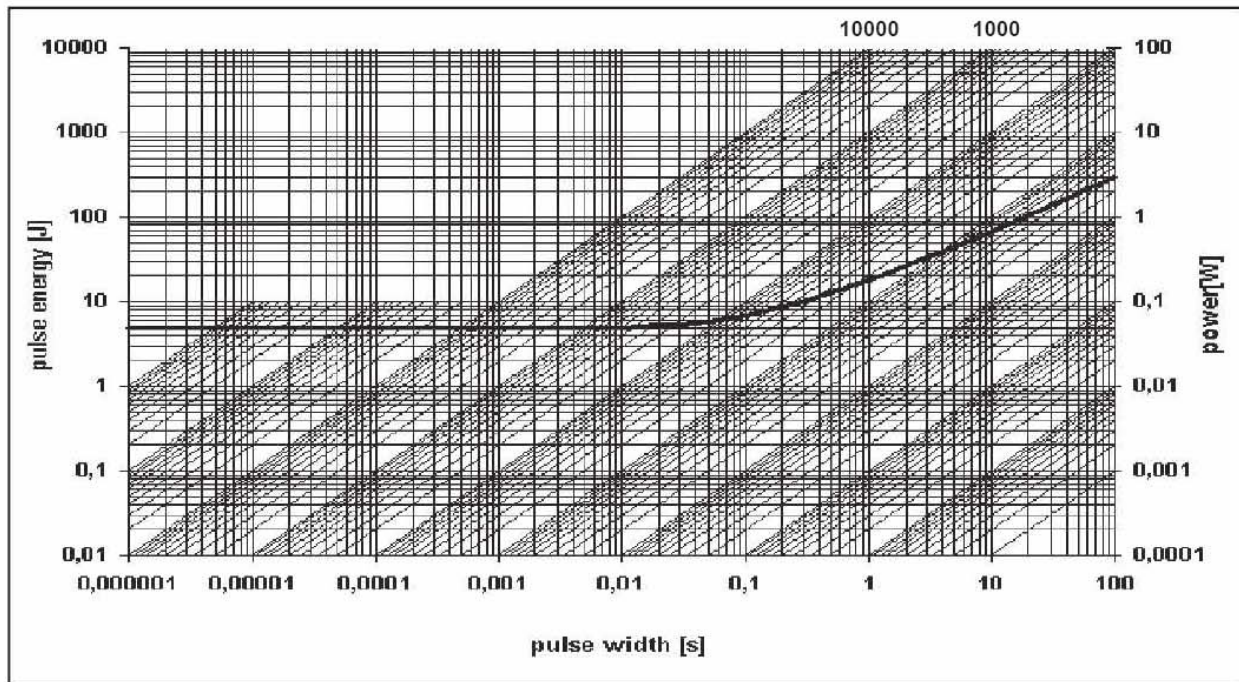
Alle Angaben über Eignung, Verarbeitung und Anwendung unserer Produkte, technische Beratung und sonstige Angaben erfolgen nach bestem Wissen, befreien den Käufer jedoch nicht von eigenen Prüfungen und Versuchen.

Warranty

All information regarding the suitable, 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.



Grenzkurve für maximale Pulsenergie bzw. Pulsleistung für Dauerbetrieb
Maximum puls energy resp. pulse power for continuous operation



Die dargestellte Kurve gilt für den Widerstandswert R0005. Für andere Werte kann die Kurve im unteren Bereich ggf. anders verlaufen, so dass in Grenzbereichen eine separate Qualifikation erfolgen sollte.

This curve is only valid for the resistance value R0005. The progression of the curve in the lower range could be different for other resistance values. Therefore a separate qualification should be made in thresholds.

MIL. - STANDARD		
Parameters	Test Conditions	Specification
Maximum Temperature for full power operation	140 °C	140 °C
Working Temperature	-55 to 170 °C	-55 to 170 °C
Thermal Shock	MIL-STD-202 method 107E-B1	0.1 %
Overload	MIL-R-26E (5 times rated power, 5 sec)	0.2 %
Solderability	MIL-STD-202 method 208	> 95 % coverage
Resistance to Solvents	MIL-STD-202 method 215A, 2.1a, 2.1d	no damage
Low Temperature Storage and Operation	MIL-STD-26E	0.1 %
Resistance to Soldering Heat	MIL-STD-202 method 210B	0.1 %
Moisture Resistance	MIL-STD-202 method 106	0.1 %
Shock	MIL-STD-202 method 213B-A	0.2 %
Vibration, High Frequency	MIL-STD-202 method 204D-B	0.2 %
Life	MIL-STD-26E	0.2 %
Storage Life at Elevated Temperature	MIL-STD-202 method 108A-F	0.3 %
High Temperature Exposure	140 °C, 2000 h	0.5%
Current Noise	MIL-STD-202 method 308	0.01 %
Voltage Coefficient (%/V)	MIL-STD-202 method 309	linearity error less than 120dB
Resistance Temperature Characteristic	MIL-STD-202 method 304 (20-60°C)	<50 ppm/K
Thermal EMF	0 - 100 °C	1 µV/ °C max.
Frequency Characteristic	inductivity	< 3 nH