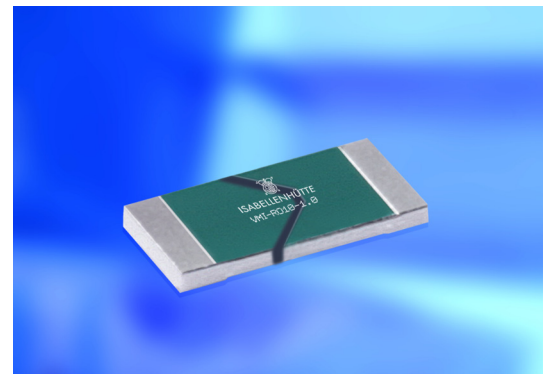


**ISA-PLAN® - SMD Präzisionswiderstände / SMD precision resistors**

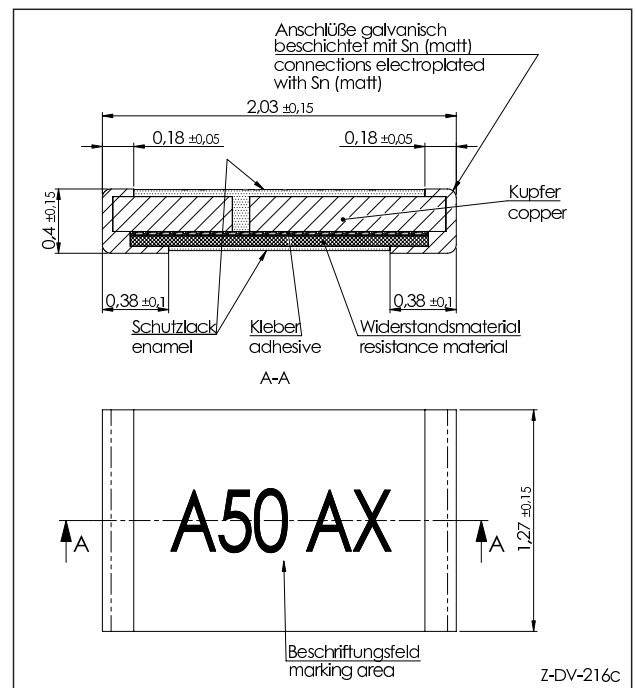
<b>TECHNISCHE DATEN / TECHNICAL DATA</b>		
Widerstandswerte	Resistance values	10, 50, 100 mOhm
Toleranz	Tolerance	5 %
Temperaturkoeffizient	Temperature coefficient	< 30 ppm/K (20 °C - 60 °C)
Temperaturbereich	Applicable temperature range	-55 °C bis/to +170 °C
Belastbarkeit	Load capacity	0.5 W
Innerer Wärmewiderstand ( $R_{thi}$ )	Internal heat resistance ( $R_{thi}$ )	< 80 K/W
Isolationsspannung	Dielectric withstanding voltage	200 V AC/DC
Induktivität	Inductance	< 3 nH
Stabilität (Nennlast) Abweichung $T_K =$ Kontaktstellentemperatur		< 0.5 % nach/after 2000 h ( $T_K = 100$ °C)
Stability (Nominal load) deviation $T_K =$ Terminal temperature		< 0.7 % nach/after 2000 h ( $T_K = 130$ °C)

**MERKMALE / FEATURES**

- 0,5 Watt Dauerleistung bei 100 °C  
0.5 Watt permanent power at 100 °C
- Dauerströme bis 7 A (10 mOhm)  
Constant current up to 7 A (10 mOhm)
- Kleine Baugröße (0805)  
Small size (0805)
- Sehr hohe Pulsbelastbarkeit  
High pulse power rating
- Sehr gute Langzeitstabilität  
Excellent long term stability
- Bauteilemontage: Reflow- und IR-Löten  
Mounting: Reflow- and IR-soldering

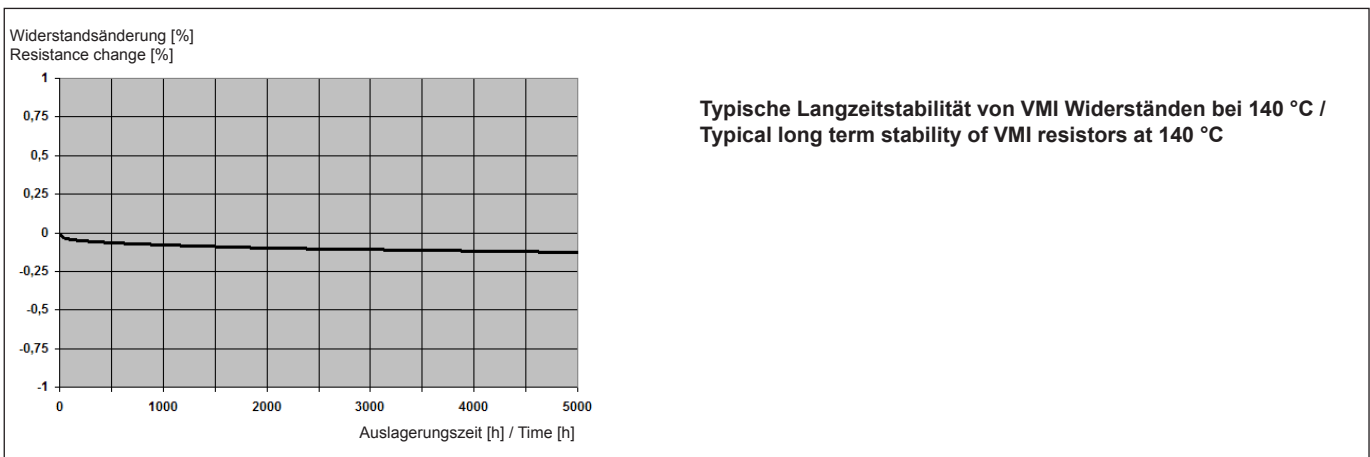
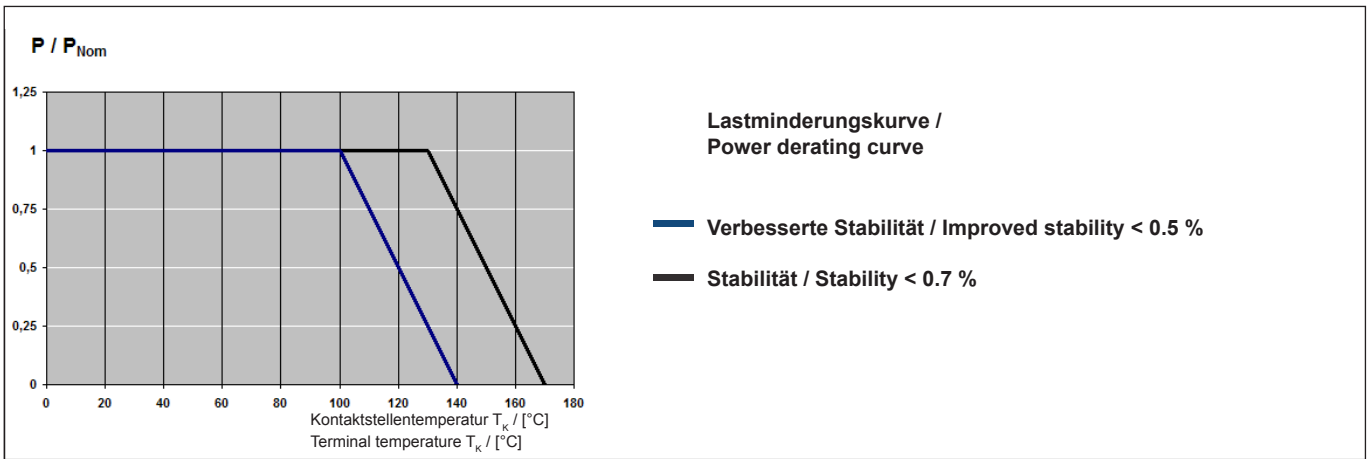
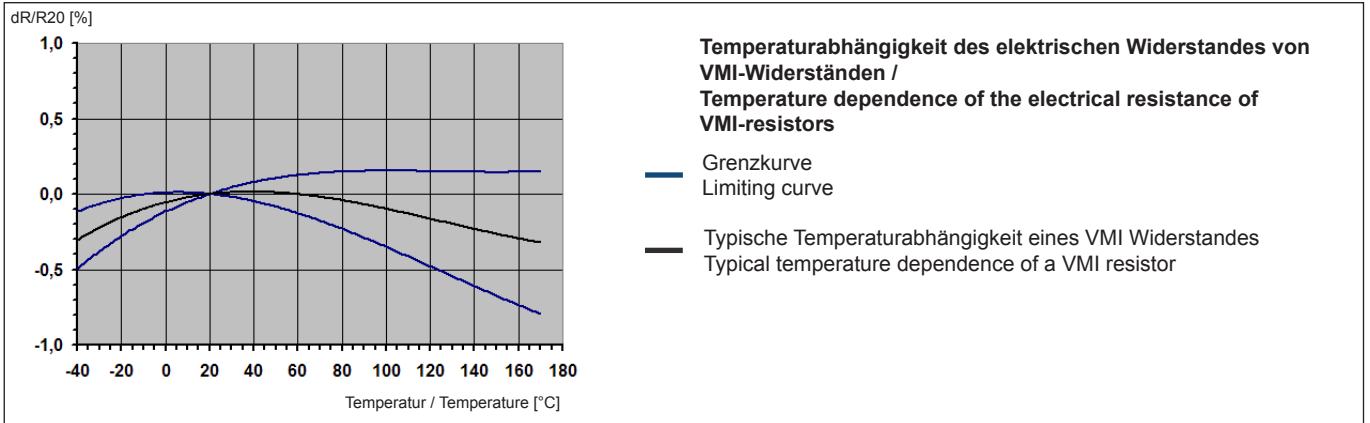

**Bauform / Size 0805**
**APPLIKATIONEN / APPLICATION**

- Messwiderstand für Leistungshybride  
Current sensor for power hybrid applications
- Steuergeräte in der Automobiltechnik  
Control systems for the automotive market
- Leistungsmodul  
Power modules
- Frequenzrichter  
Frequency converters
- Schaltnetzteile  
Switch mode power supplies



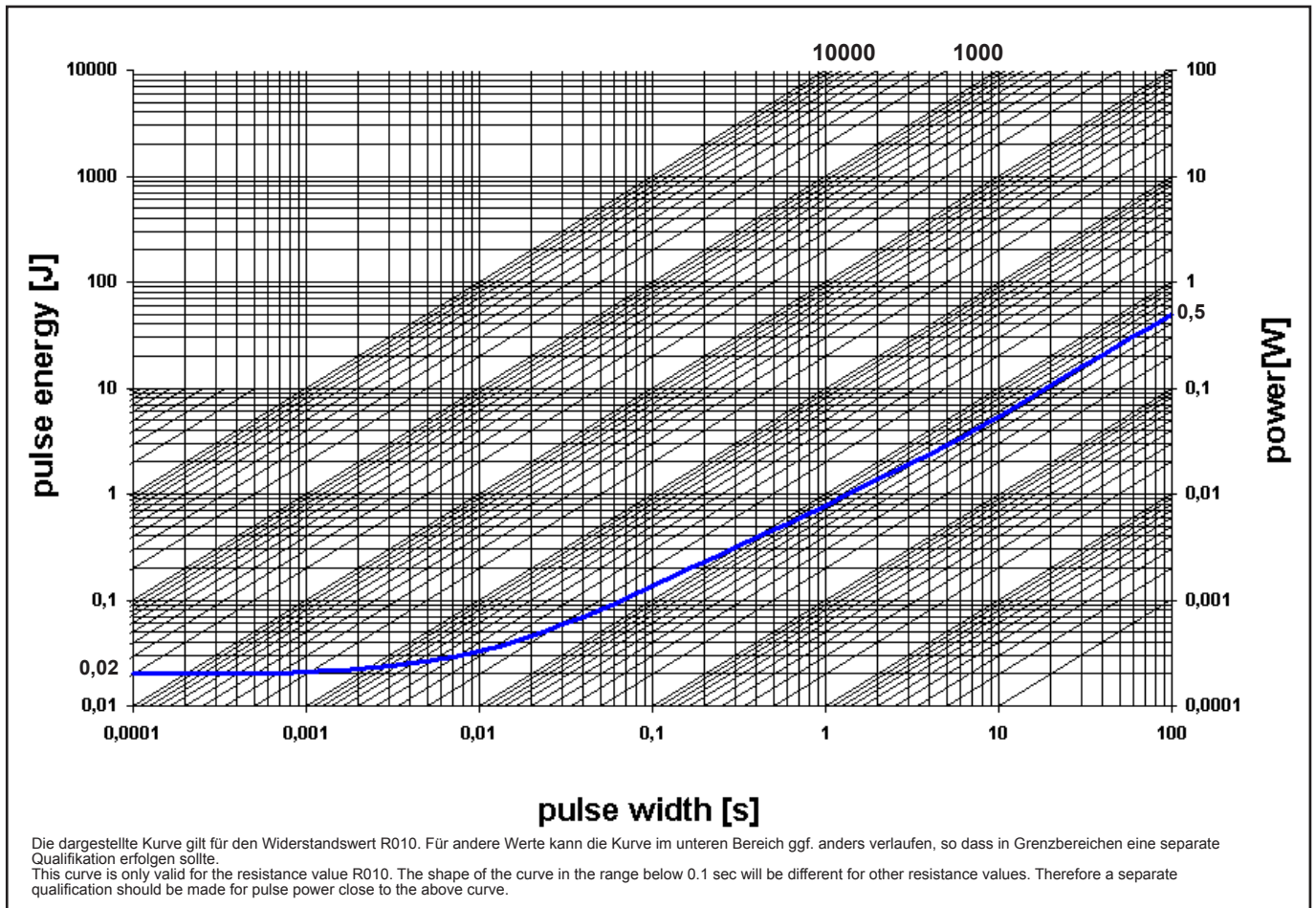
Zu Serienbeginn ohne Beschriftung / At start of series release without marking

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





## Grenzkurve für maximale Pulsenergie bzw. Pulsleistung für Dauerbetrieb / Maximum pulse energy respectively pulse power for continuous operation



Spezifikation / Specification			
Parameters	Test Conditions	Specified values	Typical test data
Maximum Temperature for full power operation	110 °C	110 °C	
Working Temperature	-55 to 170 °C	-55 to 170 °C	
Thermal Shock	MIL-STD-202 method 107-B1	±0.1 %	±0.05%
Solderability	MIL-STD-202 method 208	> 95 % coverage	
Resistance to Solvents	MIL-STD-202 method 215, 2.1a, 2.1d	no damage	
Low Temperature Storage and Operation	MIL-STD-26E	±0.1 %	±0.02
Resistance to Soldering Heat	MIL-STD-202 method 210	±0.1 %	±0.05
Moisture Resistance	MIL-STD-202 method 106	±0.1 %	±0.05
Mechanical shock	MIL-STD-202 method 213-A	±0.1 %	±0.02
Vibration, High Frequency	MIL-STD-202 method 204-B	±0.2 %	±0.05
Operational Life	MIL-STD-26E	±0.7 %	±0.5
High Temperature Exposure	MIL-STD-202 method 108-F	±0.5 %	±0.3
High Temperature Exposure	140 °C, 2000 h	±0.3 %	±0.1
Current Noise	MIL-STD-202 method 308	n. a. for R< 10Ohm	
Voltage Coefficient (%/V)	MIL-STD-202 method 309	linearity error less than 120dB	
Resistance Temperature Characteristic	MIL-STD-202 method 304 (20-60°C)	<20 ppm/K	10 ppm/K
Thermal EMF	0 - 100 °C	2 µV/ K max.	0.5µ/ K
Frequency Characteristic (R<20mOhm)	inductance	< 2 nH	< 0.5