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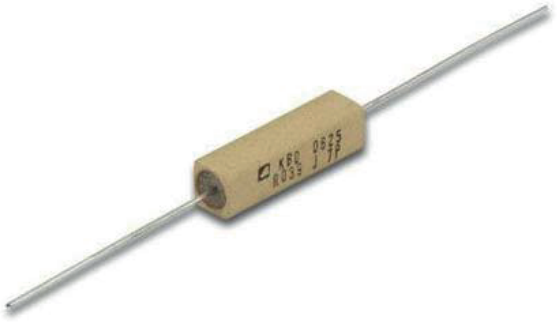
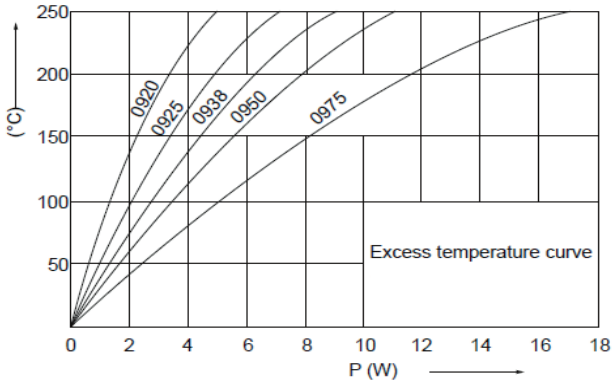
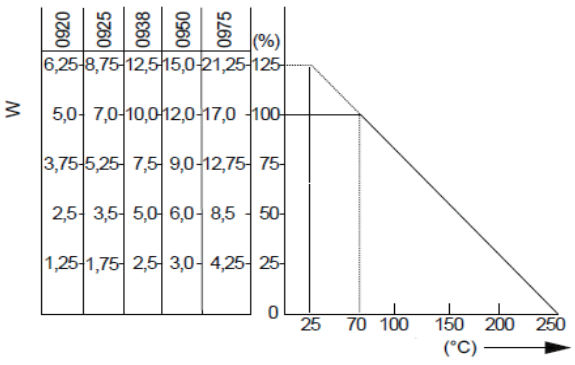


CERAMIC CASE RESISTORS KBD-09 MODEL

TECHNICAL DESIGN

GENERAL FEATURES





GENERAL FEATURES

The resistors of the KBD series are low-power resistor, the main characteristics for this resistors are the compactness, the possibility to made low value of resistance and the small dimensions that permit to use this products on electronic printed boards. The terminal may be tinned and permit a fast insert on electric board.

GENERAL FEATURES

Nominal resistance values	series E 12 (10%), Series E 24 (5%), DIN 41426
Climatic Category (according to IEC 68)	55/255/10
Welding test (welding bath 260 °C x10s.)	≤ 1% + 0,1 Ω
Temperature cycling(-55°C / +200°C)	≤ 2% + 0,1 Ω
Damp heat (21 days 40 °C / 95% relative humidity)	≤ 3% + 0,1 Ω
Resistance range Ts= 250°C	1,000 h : -1.5 fino a +4.0%
	10,000 h -2.: 0 fino a +6.0%
	100,000 h -3.: 0 fi no +10.a 0%

The indicated values are valid for 99.7% of all resistors. In the case of resistors with low ohmic values, the indicated variations can be exceeded by 0.1 Ω.
Reliability: Indicative value at an ambient temperature of 70 °C, a relative atmospheric humidity of 25% and a surface temperature standard rating for complete failure : <= 100 x 10-9/h.
Note :
Ta= Ambient temperature
Ts = Surface temperature

For ceramic case resistors, the solderability of the connection wires is limited in a range of 5 mm

The measure "ML" indicates the test points of measuring, as the lenght of the terminals of very low-valued resistors influences the measuring result.

GENERAL FEATURES

Style DIN 45921		KBD 09020 (KBD 0918)	KBD 0925	KBD 0938	KBD 0950	KBD 0975
Dimensions	**L=**	20 ±1 mm (18 ±1 mm)	25 ±1 mm	38 ±1 mm	50 ±1,5 mm	75 ±2 mm
	ML =	40 ±1 mm	45 ±1 mm	60 ±1 mm	75 ±1 mm	100 ±1 mm
Resistance range		R0062 - R051	R0091 - R068	R013 - R10	R018 - R13	R025 - R20
Resistance tolerances		K (± 10%) J (± 5%) up to F (± 1%) in preparation				
Power rating P_N		5 W	7 W	9 W	11 W	17 W
Dissipation at Ta=25°C	**Ts= 150°C**	2,8 W	4,0 W	5,3 W	6,8 W	9,8 W
	Ts= 200°C	4,1 W	6,0 W	7,6 W	9,4 W	14,0 W
	Ts= 255°C	6,25 W	8,75 W	12,5 W	15,0 W	21,25 W
Dissipation at Ta=70°C	**Ts= 200°C**	2,9 W	4,2 W	5,5 W	7,0 W	10,0 W
	Ts= 250°C	4,3 W	6,2 W	7,8 W	9,7 W	14,4 W
	Ts= 300°C	5,0 W	7,0 W	9,0 W	11,0 W	17,0 W
Dielectric withstanding voltage		≥ 2000 Veff				
Limiting voltage		U = RADQ (P_N x R)				
Temperature coefficient		CuNi 44 / NiCr: -80...+200 x 10^{-6}/K				
Lim. surface temperature		CuNi 10: 200°C CuNi 44 / NiCr: 300°C				
Marking		Cipher stamped, the marking of values according to DIN/IEC 62				