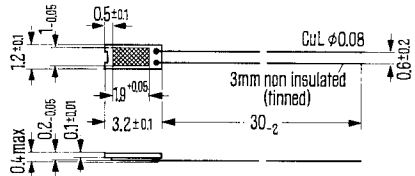


Magneto resistor

FP 30 D 250 E is a magneto resistor made of indium antimonide – nickel antimonide with a basic resistance R_0 of 250 Ω . The "D" material produces the largest resistance variation R_B/R_0 in the magnetic field. The temperature coefficient TC , however, is very high. The magneto resistor is mounted on an iron substrate.

Type	Order number
FP 30 D 250 E	Q 65030-D 250-E



Weight approx. 0.017 g Dimensions in mm

Maximum ratings

Maximum operating temperature
 Maximum electrical load ($T_{case} = 25\text{ }^\circ\text{C}$)
 Insulation voltage between system and substrate
 Storage temperature
 Thermal conduction constant:
 one side glued to metal surface
 free in air

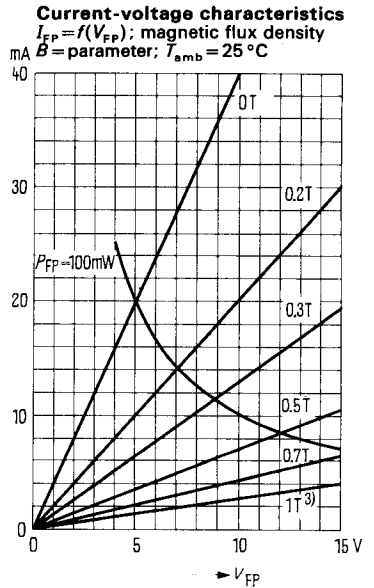
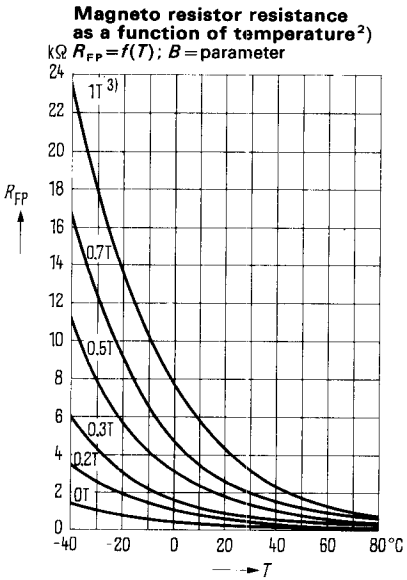
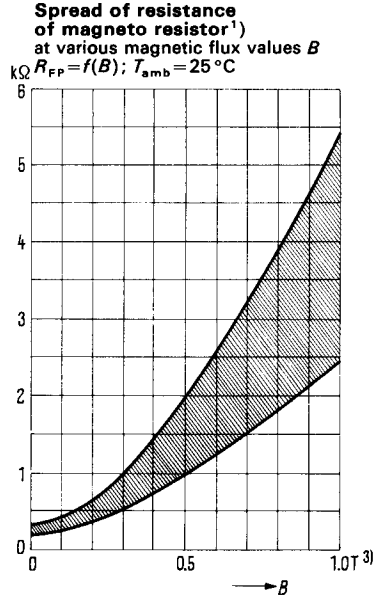
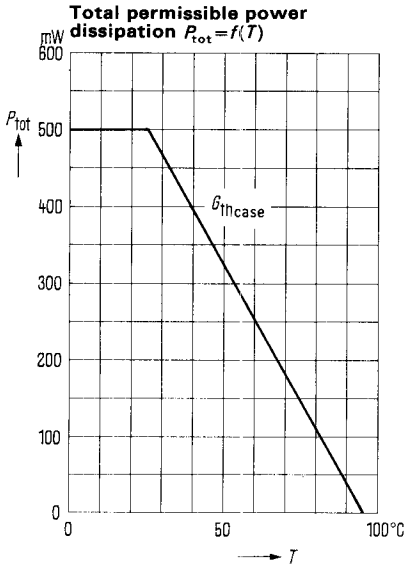
	FP 30 D 250 E	
T_{max}	95	$^\circ\text{C}$
P_{tot}	500	mW
V_I	100	V
T_s	95	$^\circ\text{C}$
$G_{th\ case}$	10	mW/K
$G_{th\ amb}$	1	mW/K

Characteristics ($T_{amb} = 25\text{ }^\circ\text{C}$)

Basic resistance
 Tolerance of basic resistance
 Relative resistance variation:
 $B = \pm 0.3\text{ T}$ (T = Tesla)
 $B = \pm 1\text{ T}^1$
 Temperature coefficient:
 $B = 0\text{ T}$
 $B = \pm 0.3\text{ T}$
 $B = \pm 1\text{ T}^1$

R_0	250	Ω
$R_0\text{-Tol.}$	± 20	%
R_B/R_0	3 (>2.8)	—
R_B/R_0	15 (>12)	—
TC_{25}	-1.8	%/ $^\circ\text{C}$
TC_{25}	-2.7	%/ $^\circ\text{C}$
TC_{25}	-2.9	%/ $^\circ\text{C}$

¹⁾ 1 T = 1 Tesla = 10^4 Gauss



1) incl. the spread of $\pm 20\%$ of basic resistance R_0
 2) for mean values of MR resistance R_{FP}
 3) $1\text{ T} = 1\text{ Tesla} = 10^4\text{ Gauss}$