

# FPR / FPS 2-T220 4-T220 2-T221 4-T221



- Extremely Low-Ohm
- Small Dimensions
- High Stability
- Low Inductance
- Low Electrical Noise
- Low Temperature Coefficient
- TO220-Housing
- SMD available

## SPECIFICATIONS

### ELECTRICAL

<b>Resistor Range</b>	:	0R002 ... 50R
<b>Power Rating</b>	:	1.5 W (70°C) 15 W with heatsink
<b>Thermal Resistance Rthj-c</b>	:	4.8 K/W
<b>Tolerances</b>	:	
<b>from 0R002</b>	:	2%, 5% / 4-pin version also 1.0%
<b>from 0R010</b>	:	1%, 2%, 5% 4-pin version also 0.1% and 0.25%
<b>from 0R100</b>	:	0.5%, 1%, 2%, 5% 4-pin version also 0.1% and 0.25%
<b>Stability</b>	:	0.1%, 0.2%, 0.5% (depends on the stress)
<b>Temperature Coefficient</b>	:	±15 ppm/K (20...60)°C / ±50 ppm/K (-40...130)°C FPR 2-T220/221 R<0R2 TCR-Shift depends on resistor value (see table next page)
<b>Max. Current</b>	:	50 A
<b>Insulation Resistance</b>	:	300 VDC
<b>Thermal EMF</b>	:	< 1 µV/K

### ENVIRONMENTAL

<b>Operating Temperature</b>	:	-40°C...130°C
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### MECHANICAL

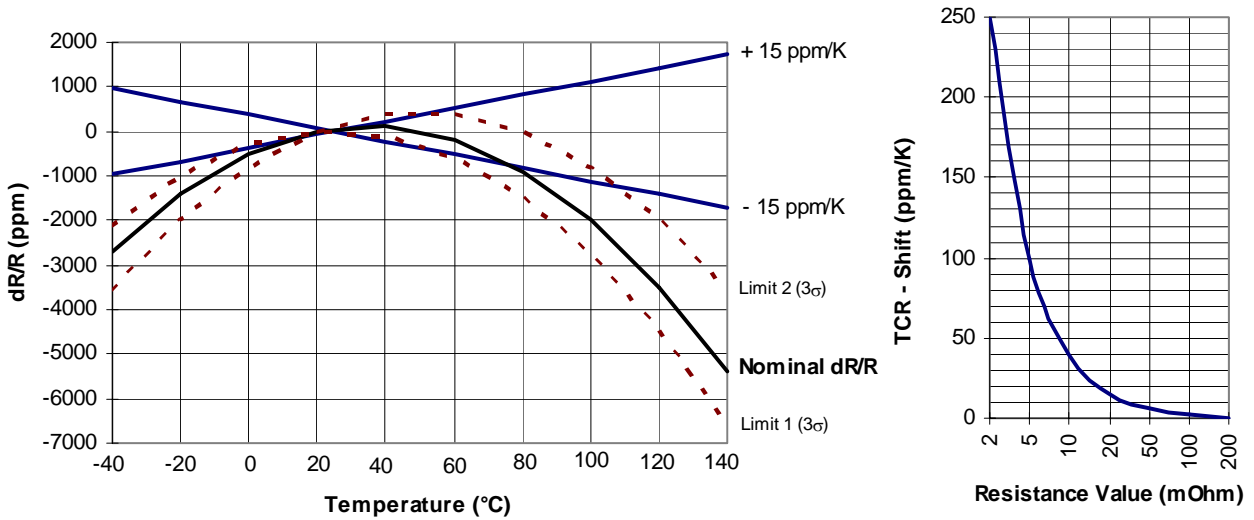
<b>Resistor Material</b>	:	Metalfoil CuNiMn (DIN 17471)
<b>Substrate</b>	:	Al <sub>2</sub> O <sub>3</sub> or anodized aluminium
<b>Housing</b>	:	Epoxidharz or PPS
<b>Connector Material</b>	:	Cu tinned, 2-pin or 4-pin
<b>Max. torque backplate</b>	:	1 Nm / T221: 0.8 Nm

# FPR / FPS

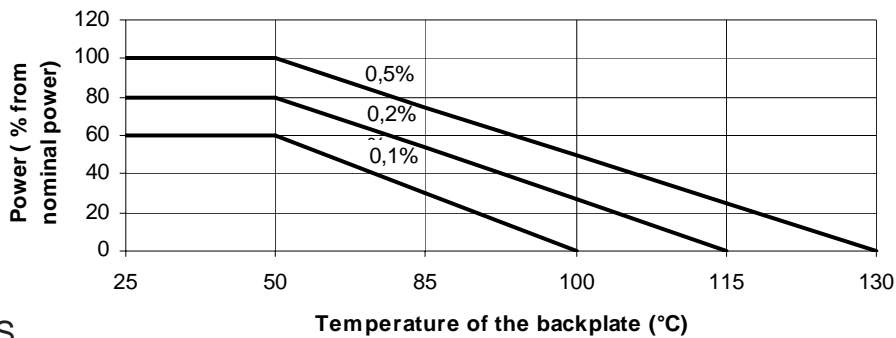
2-T220 4-T220 2-T221 4-T221



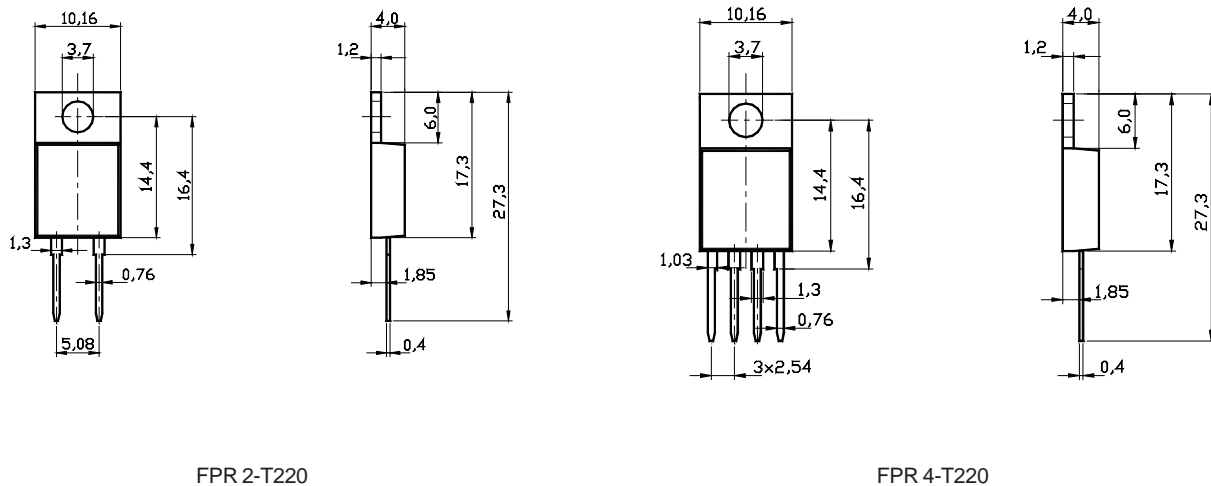
## TEMPERATURE COEFFICIENT



## DERATING CURVE



## DIMENSIONS



FPR 2-T220

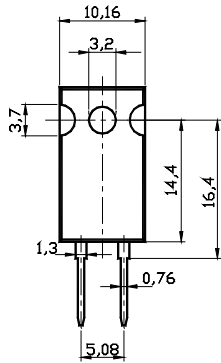
FPR 4-T220

# FPR / FPS

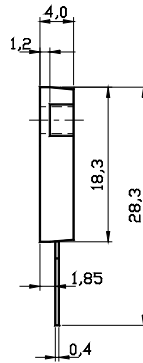
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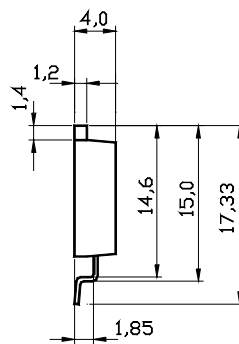
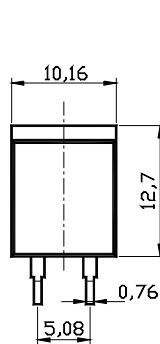
## DIMENSIONS



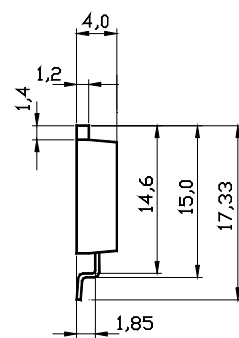
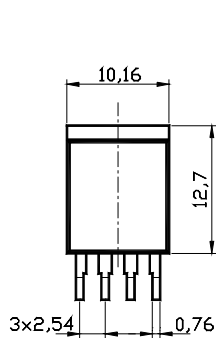
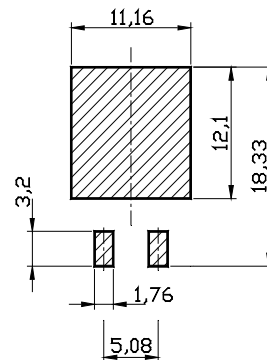
FPR 2-T221



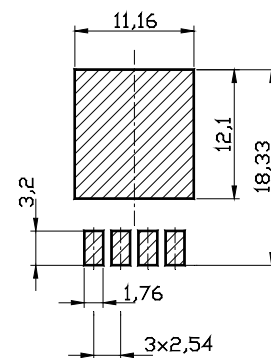
FPR 4-T221



FPS 2-T220



FPS 4-T220



## HOW TO ORDER

FPR 2-T220 10R 0.25%  
FPR 2-T221 0R068 0.5%

FPS 2-T220 1R0 1%  
FPR 4-T221 0R1 0.5%