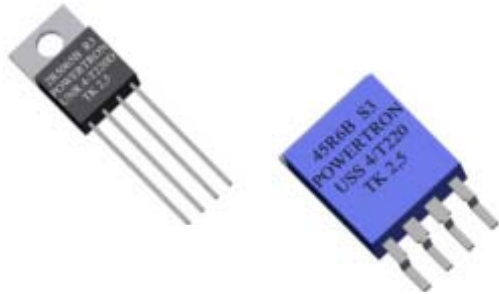


USR UNR 4-T220 4-T220B 4-T221
USS UNS 4-T220



- **Highest Stability**
- **Near Temperature Independent**
- **Lowest Tolerances**
- **Low Capacitance and Inductance**
- **High Power**
- **Available also 2-pin version**

SPECIFICATIONS

ELEKTRICAL

	USR 4-T220	UNR 4-T220 note ¹⁾
Resistance range	: 0R2...80R	0R2...80R
Nominal power	: 1.5 W (70°C) without heatsink 10 W* * with heatsink	15 W*
Thermal Resistance Rthj-c	: 10.8 K/W	6.8 K/W
Tolerances	:	
from 0R5	: 0.1%, 0.25%, 0.5%, 1%	
from 10R	: 0.05%, 0.1%, 0.25%, 0.5%, 1%	
from 50R	: 0.01%, 0.02%, 0.05%, 0.1%, 0.25%, 0.5%, 1%	
Stability	: 0.01%	
Temperature coefficient	: max. ±5 ppm/K (-55...155)°C typ. ±3 ppm/K (-55...125)°C upon request ±1 ppm/K (0...60)°C	
Voltage Proof	: 1 kVDC	
Thermal EMF	: < 1 µV/K	

ENVIRONMENTAL

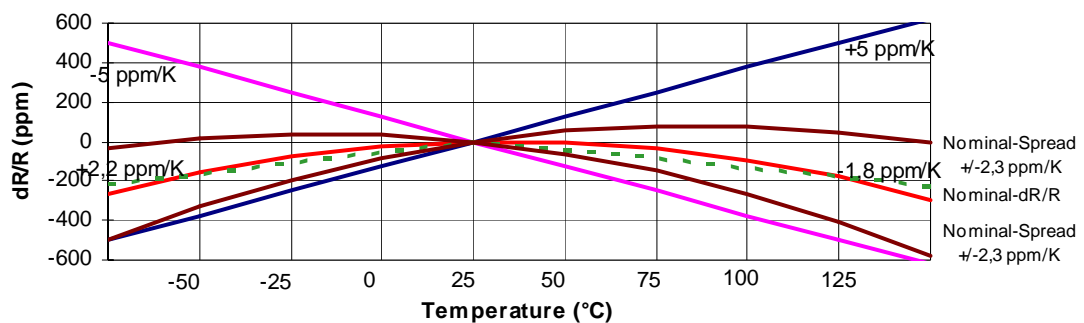
Operating Temperature Range : -55°C...155°C

MECHANICAL

Resistor Material	: NiCr-Foil	
Substrate	: Al ₂ O ₃	AlN
Housing	: Epoxy + heatsink Cu nickel plated	
Connector Material	: Cu, tinned, 4-pin	
Max. torque backplate	: 1.0 Nm	

note¹⁾: Specially designed for applications with fast changing electrical load.

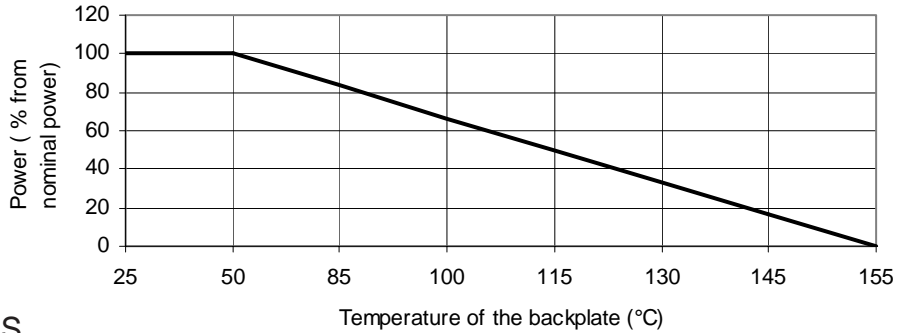
TEMPERATURE COEFFICIENT



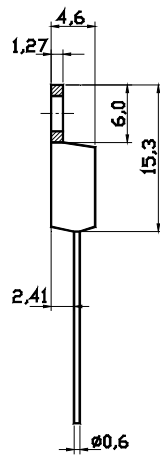
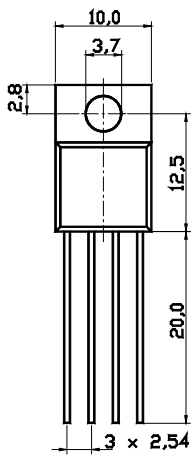
USR UNR 4-T220 4-T220B 4-T221
USS UNS 4-T220



DERATING CURVE

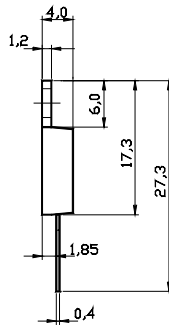
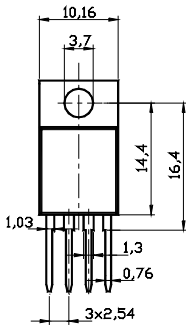


DIMENSIONS

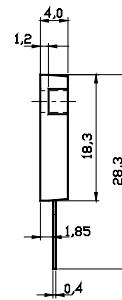
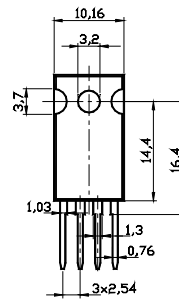


USR 4-T220
UNR 4-T220

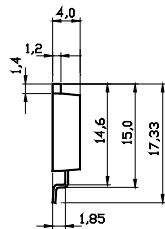
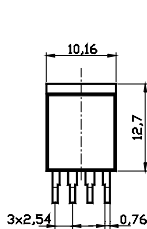
Housing for special demands and small quantities



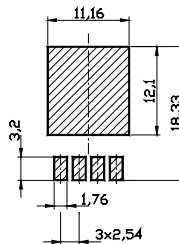
USR 4-T220B / UNR 4-T220B



USR 4-T221 / UNR 4-T221



USS 4-T220 / UNS 4-T220



Dimensions in mm

HOW TO ORDER

USR 4-T220 0R5 D 0.25% TK5

UNR 4-T220B 50R D 0.1% TK1