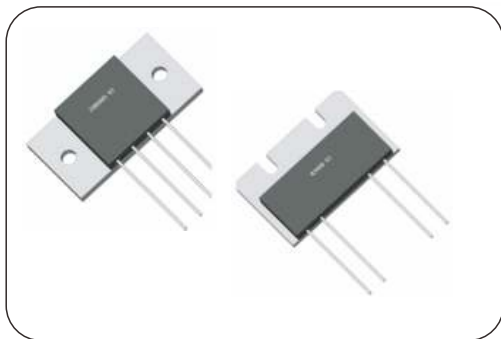


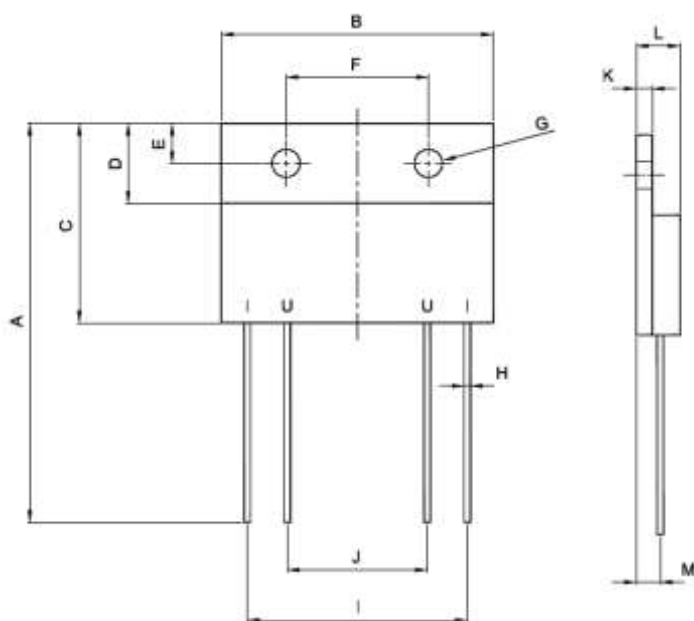


Feature

- Resistance from 0.05 Ohm to 500 Ohms
- Power Rating to 50 Watts
- Resistance Tolerances to $\pm 0.1\%$
- TCR to $\pm 1\text{ppm/K}$
- Low Stability to 0.01%
- Backplate Isolated form leads

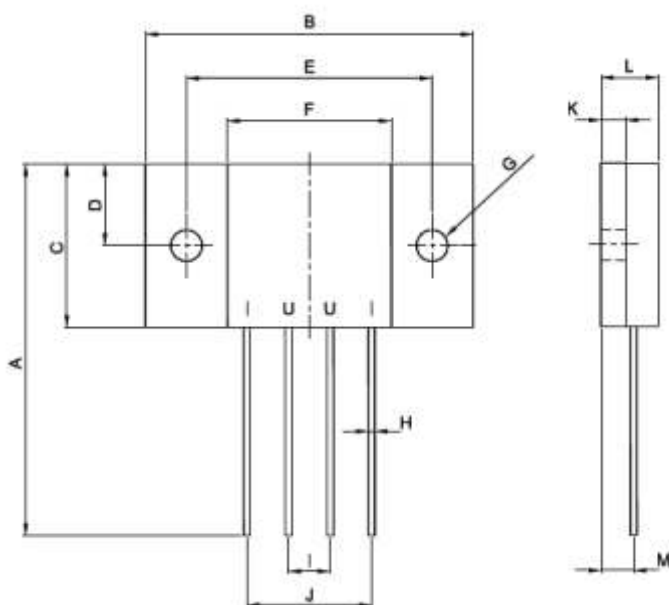
Dimensions

UTR 3425/UTT-3425



Dimension	mm	tol. ($\pm$ mm)	inches	tol. ($\pm$ inches)
A	50.00	2.0	1.97	0.079
B	34.00	0.3	1.34	0.012
C	25.00	0.2	0.98	0.008
D	10.00	0.2	0.39	0.008
E	5.00	0.1	0.20	0.004
F	17.80	0.2	0.70	0.008
G	ϕ 3.50	0.1	ϕ 0.14	0.004
H	ϕ 0.8	0.1	ϕ 0.031	0.004
I	27.50	0.2	1.08	0.008
J	17.50	0.2	0.69	0.008
K	2.00	0.1	0.08	0.004
L	5.50	0.1	0.22	0.004
M	3.00	0.2	0.12	0.008

UTR 4020/UTT-4020



Dimension	mm	tol. ($\pm$ mm)	inches	tol. ($\pm$ inches)
A	45.40	2.0	1.79	0.079
B	40.00	0.3	1.57	0.012
C	20.00	0.2	0.79	0.008
D	10.00	0.2	0.39	0.008
E	30.00	0.2	1.18	0.008
F	20.00	0.2	0.79	0.008
G	ϕ 3.80	0.1	ϕ 0.15	0.004
H	ϕ 0.8	0.1	ϕ 0.031	0.004
I	5.08	0.1	0.20	0.004
J	15.24	0.2	0.60	0.008
K	3.00	0.1	0.12	0.004
L	7.00	0.1	0.28	0.004
M	4.00	0.1	0.16	0.008

Ordering Information

Example:

UTP (1)	3W (2)	10R0 (3)	B (4)	C (5)	T (6)
Series Name	Power Rating	Resistance	Resistance Tolerance	TCR	Packaging

(1)Type: UTR UTT SERIES

(2)Power Rating: 2.5=2.5W、3W=3W

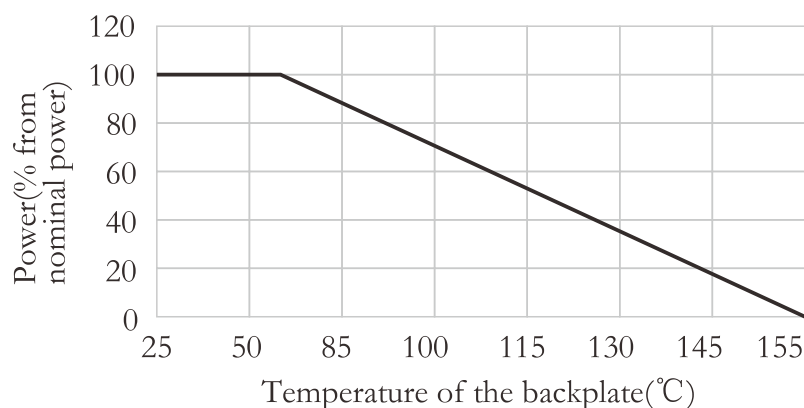
(3)Resistance Value:10R0=10R、R10=0.1Ω、47R0=47Ω

(4)Tolerance: P=±0.02%、W=±0.05%、B=±0.1%、D=±0.5%、F=±1%

(5))TCR: C7=±5ppm/°C;C6=±10ppm/°C;C5=±15ppm/°C;C4=±20ppm/°C;

(6)Packaging: B=bulk, T=Tape&Reel

Derating Curve



Power Rating Notes-

the FHR series resistors must be attached to a suitable heat-sink, the maximum internal resistor temperature is 155°C.

To specify an appropriate heatsink use the following formula:

$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta H}) - T_A}{P}$$

Where: $R_{\theta H}$ = Thermal resistance of heatsink(K/W)

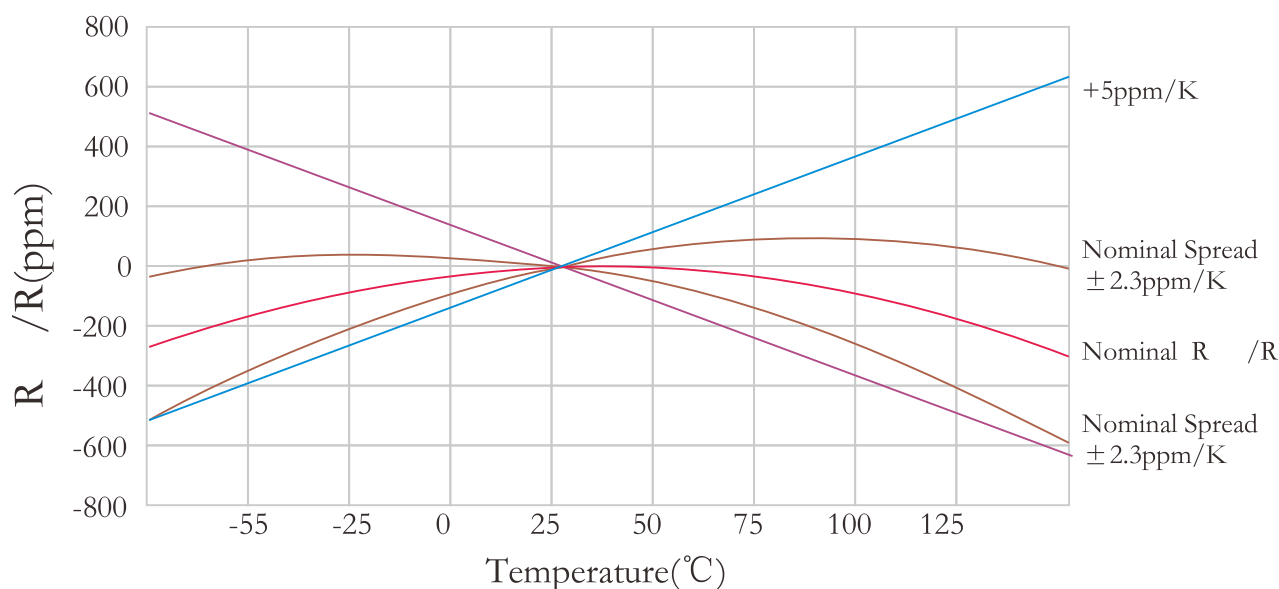
$R_{\theta R}$ = Thermal resistance of resistor(K/W)

T_{MAX} = Maximum temperature of resistor

T_A = Ambient temperature of heatsink(°C)

P = Power through resistor(W)

Temperature coefficient



● Performance Characteristics

Type	UTR 3425	UTR-4020	UTT-3425	UTT-4020
Resistance Range	0.05 to 500 Ohms		0.05 to 400 Ohms	
	other resistance values upon request/power rating depending on resistance value			
Power Rating free air 70°C with heatsink	3 W 30 W	2.5 W 30 W	3 W 50 W	2.5 W 50 W
Thermal Resistance Rthj-c	3.5 K/W	3.6 K/W	2.1 K/W	2.2 K/W
Tolerances from 0.05Ohms from 10.0Ohms from 50.0Ohms	0.1%/0.25%/0.5%/0.1% 0.05%/0.1%/0.25%/0.5%/1% 0.01%/0.02%/0.05%/0.1%/0.25%/0.5%/1%			
Stability	0.01%			
Shelf Life Stability	25ppm / ΔR after 1 year 50ppm / ΔR after 3 year			
Temperature Coefficient	max. ± 5ppm/K (-55°C to 155°C) typ. ± 3ppm/K (-55°C to 155°C) upon request ± 1ppm/K (25°C to 60°C)			
Voltage Proof	750VDC			
max. Current	15A			
Thermal EMF	0.1μV/K			
Operating Temperature Range	-55 to 155°C			
Resistor Material	NiCr-Foil			
Substrate	AlO ₃		AlN	
Housing	Epoxy+Al-heatsink			
Connector Material	Cu tinned			
Terminals	4			
Max. torque	1.0Nm			
Notes			Specially designed for applications with fast changing electrical load	