

Data Sheet for Precision Resistor

Power Resistor (wirewound)

Series UT



- Power ratings up to 10 Watts
- Stable pulse handling
- Resistance tolerances $\pm 0.01\%$..10%
- TCR up to ± 20 ppm/°C
- Non-inductive windings (option)
- Resistance values from 0.01Ω ..260k Ω
- Option high temperature range -55°C..350°C
- Induction-free winding option: MOQ 2,000 pcs.

Electrical Specification	UT						
	1/2A	1A*	2A*	3	5*	7	10*
Resistance range from 0. 01 Ω2,5k Ω	..10k Ω	..22k Ω	..45k Ω	..91k Ω	..150k Ω	..260k Ω
Resistance tolerance	$\pm 0,01\%$.. $\pm 10\%$						
Power rating standard (0W @ +275°C)	0.4W	1W	2.5W	4W	5W	7W	10W
Power rating HT version (0W @ +350°C)	0.5W	1.5W	3W	5.5W	6.5W	9W	13W
Max. working voltage	20V	52V	130V	210V	360V	650V	850V
TCR-rate	± 20 ppm/°C @ R > 10 Ω ± 50 ppm/°C @ R = 1 Ω ..10 Ω ± 90 ppm/°C @ R < 1 Ω						
Working temperature range (max.)	-55..+275°C standard / -55..+350°C HT version						
*MIL-R-26 / MIL-R-39007	--	RW-70	RW-69	--	RW-74	--	RW-78

Mechanical Specification	
Resistance technology / material	Wirewound / wire alloy
Housing material	Inorganic Silicone
Connections	Axial cooper tinned

Parameters	Test Conditions (MIL-STD 202)	Specification	
		ΔR Standard	ΔR HT version
Dielectric	See norm	$\pm 0.2\%$ +0.05 Ω	$\pm 0.2\%$ +0.05 Ω
Load life	See norm	$\pm 1\%$ +0.05 Ω	$\pm 3\%$ +0.05 Ω
Storage	See norm	$\pm 0.2\%$ +0.05 Ω	$\pm 2\%$ +0.05 Ω
Moisture resistance	See norm	$\pm 0.2\%$ +0.05 Ω	$\pm 2\%$ +0.05 Ω
Thermal shock	See norm	$\pm 0.2\%$ +0.05 Ω	$\pm 2\%$ +0.05 Ω
5X Overload (5s)	See norm	$\pm 0.2\%$ +0.05 Ω	$\pm 2\%$ +0.05 Ω
Shock	See norm	$\pm 0.1\%$ +0.05 Ω	$\pm 0.2\%$ +0.05 Ω
Vibration	See norm	$\pm 0.1\%$ +0.05 Ω	$\pm 0.2\%$ +0.05 Ω

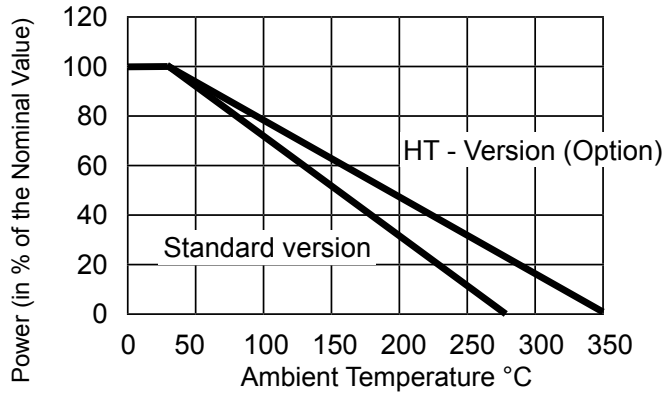
Dielectric strength: 1000 VAC (500 VAC @ UT-1/2A, UT-1A)

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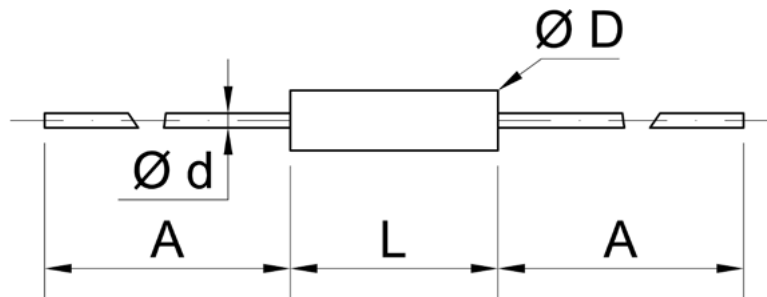
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Power Derating Curve



Drawing



UT	A (min.)	L (±1.6)	ØD (±0.8)	d (±0.05)
1/2A	25.4	6.4	2.4	0.5
1A	25.4	10.3	2.4	0.5
2A	25.4	12.7	4.7	0.8
3	25.4	17.1	6.9	1.0
5	25.4	22.2	7.9	1.0
7	25.4	35.0	9.5	1.0
10	25.4	45.2	9.5	1.0

Dimensions in mm

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Order code							
Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>						
Series:	UT						
Type / size:							
1/2A (max. 2.5kΩ)		1/2A					
1A (max. 10kΩ)		1A					
2A (max. 22kΩ)		2A					
3 (max. 45kΩ)		3					
5 (max. 91kΩ)		5					
7 (max. 150kΩ)		7					
10 (max. 260kΩ)		10					
Resistance tolerance:							
±0.02%				W0,02%			
±0.05%				W0,05%			
±0.1%				W0,1%			
±0.25%				W0,25%			
±0.5%				W0,5%			
±1%				W1%			
±5				W5%			
±10%				W10%			
<i>Option ±0.01%</i>				<i>W0,01%</i>			
Temperature coefficient:							
±20ppm/°C @ R >10Ω					TK20		
±50ppm/°C @ R =1Ω..10Ω					TK50		
<i>Option ±90ppm/°C @ R <1Ω</i>					<i>TK90</i>		
Resistance value - please choose: From 0.01Ω bis ≤ see type						xxxxxxx	
<i>Induction-free winding option: MOQ 2,000 pcs.</i>							<i>N</i>
<i>Option high temperature version</i>							<i>HT</i>

Order Example	Series	Type	Resistance tolerance	Temperature coefficient	Resistance value	Inductance	Temperature version
Choice	UT	3	±0.1%	20ppm/°C	10.1kΩ	Standard	Standard
Code	UT	3	W0,1%	TK20	10k100	-	-