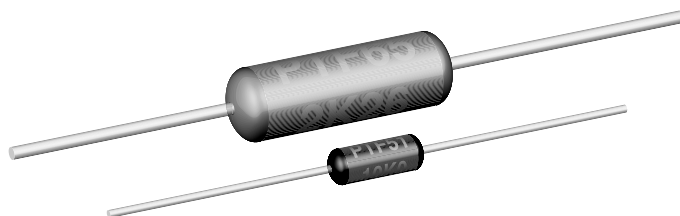


Metal Film Resistors, Precision, Ultra-high Stability



FEATURES

- Extremely low temperature coefficient of resistance
- Very low noise and voltage coefficient
- Very good high frequency characteristics
- Can replace wirewound bobbins
- Proprietary epoxy coating provides superior moisture protection

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{85^{\circ}\text{C}}$ W	LIMITING ELEMENT VOLTAGE MAX. $V_{\cong}$	TEMPERATURE COEFFICIENT ppm/ $^{\circ}\text{C}$	TOLERANCE %	RESISTANCE RANGE Ω
PTF-51	0.05	200	5, 10, 15	0.02, 0.05, 0.1, 0.25, 0.5, 1	15R - 100K
PTF-56	0.125	300	5, 10, 15	0.01, 0.02, 0.05, 0.1, 0.25, 0.5, 1	15R - 500K
PFT-65	0.25	500	5, 10, 15	0.05, 0.1, 0.25, 0.5, 1	15R - 1M0

- Marking: Print-marked-model, Value, Tolerance, TC, Date code

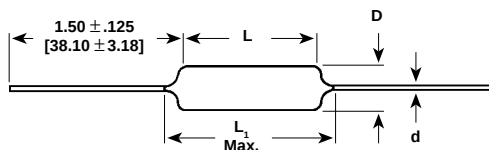
TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	PTF-51	PTF-56	PTF-65
Rated Dissipation at 85 $^{\circ}\text{C}$	W	0.05	0.125	0.25
Limiting Element Voltage	$V_{\cong}$	200	300	500
Insulation Voltage (1 min)	V_{eff}	> 500	> 500	> 500
Thermal Resistance	K/W	< 1300	< 520	260
Terminal Strength, axial	N	> 150	> 50	> 50
Insulation Resistance	Ω	$\geq 10^{11}$	$\geq 10^{11}$	$\geq 10^{11}$
Category Temperature Range	$^{\circ}\text{C}$	- 55/+ 150	- 55/+ 150	- 55/+ 150
Failure Rate	$10^{-9}/\text{h}$	< 1	< 1	< 1
Weight (max)	g	0.11	0.35	0.75

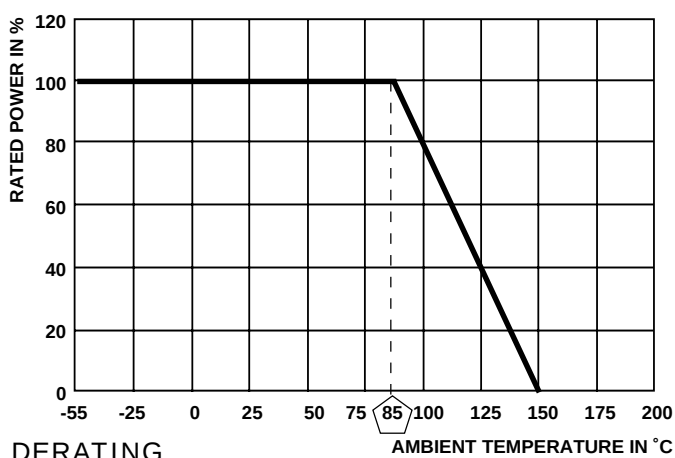
ORDERING INFORMATION

PTF-56	20K01	B	T-13	R36
MODEL	RESISTANCE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING
PTF 51	VALUE	F = $\pm 1\%$	ppm/ $^{\circ}\text{C}$	See appropriate
PTF 56	Ω	D = $\pm 0.5\%$	T-10 = ± 15	catalog or web page
PTF 65	62R2 = 622	C = $\pm 0.25\%$	T-13 = ± 10	R36 = Reel
	1M00 = 1M	B = $\pm 0.1\%$	T-16 = ± 5	B14 = Bulk
		A = $\pm 0.05\%$		
		BC = $\pm 0.02\%$		
		BB = $\pm 0.01\%$		

DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]			
	L	D	L ₁ max	d
PTF-51	0.150 ± .020 [3.81 ± .508]	0.070 ± .010 [1.78 ± .254]	0.200 [5.08]	0.016 [.406]
PTF-56	0.250 ± .031 [6.35 ± .787]	0.091 ± .009 [2.31 ± .229]	0.300 [7.62]	0.025 [.635]
PTF-65	0.375 ± .062 [9.53 ± 1.57]	0.145 ± .016 [3.68 ± .406]	0.475 [12.07]	0.025 [.635]



MATERIAL SPECIFICATIONS	
Element:	Precision deposited nickel-chrome alloy Coated construction
Encapsulation:	Specially formulated epoxy compounds Standard lead material is solder-coated copper with controlled annealing
Core:	Fire-cleaned high purity ceramic
Termination:	Solderable and weldable per MIL-STD-1276, Type C.

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST RESULTS
Endurance	MIL-PRF-55182 Para. 4.7.17 1000 hours rated power at + 85°C	≤ ± 0.04%
Thermal Shock	MIL-STD-202, Method 107 -55°C to + 85°C	≤ ± 0.02%
Short Time Overload	MIL-R-10509, Paragraph 4.6.6	≤ ± 0.01%
Low Temperature Operation	MIL-PRF-55182, Methods 4.7.9	≤ ± 0.02%
Moisture	MIL-STD-202 106	≤ ± 0.08%
Resistance to Soldering Heat	MIL-STD-202, Methods 210	≤ ± 0.02%
Damp Heat IEC 60068-2.3	56 days at 40°C and 92% RH	≤ ± 0.08%
Dielectric Withstanding Voltage	MIL-STD-202, Methods 301 & 105	≤ ± 0.01%