

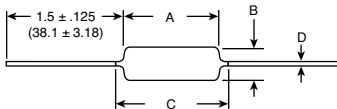
# VISHAY / DALE .1% Metal Film Resistors, Precision, Ultra-high Stability

## TYPE PTF SERIES

### 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

DIMENSIONS: in. (mm)



Model	A	B	C	D
PTF56	0.250±0.031 (3.81±0.51)	0.091±0.009 (2.31±0.23)	0.300 (7.62)	0.025 (0.64)
PTF65	0.375±0.062 (9.53±1.57)	0.145±0.016 (3.68±0.41)	0.475 (12.07)	0.025 (0.64)

For quantities of 200 and up, call for quote.

MOUSER STOCK NO.	Vishay Part No.	Value	TCR (ppm/°C)	Tol. ± %	Price Each			
					1	25	50	100
<b>PTF56, 1/8 Watt @ 85°C - Limiting Element Voltage Max. 300</b>								
71-PTF5649R900BYBF	PTF5649R900BYBF	49.9	10	0.10				
71-PTF5650R000BYBF	PTF5650R000BYBF	50	10	0.10				
71-PTF56100R00BZBF	PTF56100R00BZBF	100	15	0.10				
71-PTF56100R00BYBF	PTF56100R00BYBF	100	10	0.10				
71-PTF56200R00AYBF	PTF56200R00AYBF	200	10	0.05				
71-PTF56200R00BYBF	PTF56200R00BYBF	200	10	0.10				
71-PTF56250R00BYBF	PTF56250R00BYBF	250	10	0.10				
71-PTF56500R00BYBF	PTF56500R00BYBF	500	10	0.10				
71-PTF561K0000BYBF	PTF561K0000BYBF	1K	10	0.10				
71-PTF561K0000BZBF	PTF561K0000BZBF	1K	5	0.10				
71-PTF562K0000BYBF	PTF562K0000BYBF	2K	10	0.10				
71-PTF563K0000BYBF	PTF563K0000BYBF	3K	10	0.10				
71-PTF563K8800BZBF	PTF563K8800BZBF	3.88K	5	0.10				
71-PTF564K9900BYBF	PTF564K9900BYBF	4.99K	10	0.10				

MOUSER STOCK NO.	Vishay Part No.	Value	TCR (ppm/°C)	Tol. ± %	Price Each			
					1	25	50	100
<b>PTF56, 1/8 Watt @ 85°C - Limiting Element Voltage Max. 300 (cont.)</b>								
71-PTF565K0000BYBF	PTF565K0000BYBF	5K	10	0.10				
71-PTF565K0000BZBF	PTF565K0000BZBF	5K	5	0.10				
71-PTF567K5000BYBF	PTF567K5000BYBF	7.5K	10	0.10				
71-PTF5610K000BZBF	PTF5610K000BZBF	10K	15	0.10				
71-PTF5610K000BYBF	PTF5610K000BYBF	10K	10	0.10				
71-PTF5610K000BZBF	PTF5610K000BZBF	10K	5	0.10				
71-PTF5611K0000BYBF	PTF5611K0000BYBF	11K	10	0.10				
71-PTF5615K0000BYBF	PTF5615K0000BYBF	15K	10	0.10				
71-PTF5620K000BYBF	PTF5620K000BYBF	20K	10	0.10				
71-PTF5620K000BZBF	PTF5620K000BZBF	20K	5	0.10				
71-PTF5624K9000BYBF	PTF5624K9000BYBF	24.9K	10	0.10				
71-PTF5650K000BZBF	PTF5650K000BZBF	50K	5	0.10				
71-PTF56100K00BYBF	PTF56100K00BYBF	100K	10	0.10				
71-PTF56100K00BZBF	PTF56100K00BZBF	100K	5	0.10				
71-PTF56200K00BZBF	PTF56200K00BZBF	200K	5	0.10				
71-PTF56249K00BZBF	PTF56249K00BZBF	249K	10	0.10				
71-PTF56249K00BYBF	PTF56249K00BYBF	249K	5	0.10				
71-PTF56300K00BZBF	PTF56300K00BZBF	300K	5	0.10				
71-PTF56499K00BZBF	PTF56499K00BZBF	499K	5	0.10				
<b>PTF65, 1/4 Watt @ 85°C - Limiting Element Voltage Max. 500</b>								
71-PTF6550R000BYBF	PTF6550R000BYBF	50	10	0.10				
71-PTF65100R00BYBF	PTF65100R00BYBF	100	10	0.10				
71-PTF65120R00BYBF	PTF65120R00BYBF	120	10	0.10				
71-PTF65250R00AYBF	PTF65250R00AYBF	250	10	0.05				
71-PTF65400R00AZBF	PTF65400R00AZBF	400	5	0.05				
71-PTF651K0000BYBF	PTF651K0000BYBF	1K	10	0.10				
71-PTF6510K000BZBF	PTF6510K000BZBF	10K	5	0.10				
71-PTF65100K00BYBF	PTF65100K00BYBF	100K	10	0.10				
71-PTF651M0000BYBF	PTF651M0000BYBF	1M	10	0.10				
71-PTF651M0000BZBF	PTF651M0000BZBF	1M	15	0.10				

Loaded Resistors

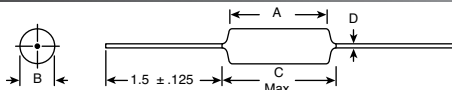
Vishay

## VISHAY / DALE 1% Metal Film Resistors - 1/8, 1/4 and 1/2 Watt

### TYPE RN SERIES

#### Features:

- Very low noise
- Very low voltage coefficient
- Excellent high frequency characteristics
- Meets MIL-R-10509
- Flame retardant epoxy coating



DIMENSIONS: in.

Series	A	B	C	D
RN55D	.240±.020	.090±.008	.278	.025±.002
RN60D	.344±.031	.145±.015	.425	.025±.002
RN65D	.562±.031	.180±.015	.687	.025±.002

#### RN55D, 1/8W

MOUSER STOCK NO.	Range of Values (Ω)	Price Each				
		1	50	100	500	1000
71-RN55D-F-Value	10-1M					Call

#### RN60D, 1/4W

MOUSER STOCK NO.	Range of Values (Ω)	1	50	100	500	1000
71-RN60D-F-Value	10-1M					Call

#### RN65D, 1/2W

MOUSER STOCK NO.	Range of Values (Ω)	1	50	100	500	1000
71-RN65D-F-Value	10-1.0M					Call

For additional values call your Mouser representative or buy on-line at mouser.com

#### TABLE OF STOCKED VALUES

RN55D-F 1/8 Watt				RN60D-F 1/4 Watt			RN65D-F 1/2 Watt		
10	221	825	4.32K 13.3K 200K	10	750	15K	10	5.62K	182K
15	243	909	4.75K 15K 249K	20	825	20K	100	6.81K	221K
20	249	1K	4.99K 18.2K 301K	24.9	1K	22.1K	200	10K	301K
22.1	267	1.21K	5.11K 20K 475K	49.9	1.1K	33.2K	221	15K	475K
27.4	274	1.5K	5.62K 22.1K 499K	75	1.21K	49.9K	332	20K	499K
33.2	301	1.82K	6.04K 27.4K 1M	100	1.5K	100K	475	22.1K	1M
47.5	332	2K	6.19K 30.1K	121	1.82K	150K	681	33.2K	
49.9	392	2.21K	6.81K 33.2K	150	2K	200K	825	39.2K	
56.2	402	2.37K	7.5K 47.5K	200	2.21K	221K	1K	47.5K	
75	432	2.49K	8.06K 49.9K	221	2.74K	499K	1.5K	49.9K	
90.9	475	2.74K	8.25K 51.1K	243	3.01K	1M	1.82K	56.2K	
100	499	3.01K	9.09K 75K	249	4.99K		2.21K	68.1K	
121	511	3.32K	10K 80.6K	301	5.62K		2.74K	100K	
150	562	3.65K	11K 82.5K	332	6.81K		3.32K	110K	
182	681	3.92K	12.1K 100K	475	10K		4.75K	121K	
200	750	4.02K	13K 150K	499	12.1K		4.99K	150K	

## VISHAY / DALE Metal Film Resistors - 1/4, 1/2, 3/4, and 1 Watt ±1% Tolerance

### TYPE CCF55, CCF60 SERIES

#### Features:

- ±100PPM/°C temperature coefficient
- Superior electrical performance
- Flame retardant epoxy conformal coating
- Standard 5 band color code marking for ease of identification after mounting
- Tape and reel packaging

DIMENSIONS: IN

Model	A	B	C	D	E
CCF-55	.240±.020	.090±.008	.265	.025±.002	1.100±.040
CCF-60	.344±.031	.139±.009	.400	.025±.002	1.000±.040

MOUSER STOCK NO.	Range of Values (Ω)	Price Each				
		1	100	1000	2000	5000
71-CCF55-Value	10-2.49M					
71-CCF60-Value	10-1M					

#### Specifications:

- Power Rating: CCF55=1/4 & 1/2 watt CCF60=1/2, 3/4, & 1 watt
- Insulation Resistance: 10,000 MΩ
- Operating Temperature: -65°C to +165°C

#### TABLE OF STOCKED VALUES

10	75	340	866	2.49K	7.15K	18.2K	71.5K	267K
15	82.5	392	1K	2.74K	7.5K	20K	75K	274K
16.2	100	402	1.07K	2.8K	7.68K	22.1K	82.5K	301K
20	105	422	1.1K	3.16K	8.25K	27.4K	90.9K	332K
22.1	120	432	1.21K	3.32K	8.45K	30.1K	100K	392K
24.9	121	475	1.3K	4.32K	8.7K	33.2K	110K	475K
27.4	150	499	1.33K	4.53K	10K	39.2K	121K	499K
30.1	200	510	1.5K	4.75K	10.2K	40.2K	133K	1M
39.2	220	562	1.62K	4.99K	11K	47.5K	137K	1.5M
47.5	221	604	1.82K	5.11K	12.1K	49.9K	150K	2M
49.9	243	619	2K	5.62K	13K	51.1K	162K	2.21M
51.1	249	681	2.15K	6.04K	14K	56.2K	200K	2.49M
60.4	301	750	2.21K	6.19K	15K	68.1K	221K	
73.2	332	825	2.43K	6.81K	16.2K	68.1K	249K	

### MODEL FRJ-50 ZERO OHM JUMPER RESISTOR

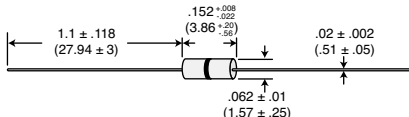
#### Features:

- Provides low resistance circuit interconnections
- Flame retardant coating
- Compatible with automatic insertion equipment

#### Specifications:

- Resistance: 0.01Ω max.
- Insulation Resistance: Dry 10,000MΩ; Wet 100MΩ
- Lead Material: Tin-plated copper (max. 98% tin)

DIMENSIONS: in. (mm)



For quantities of 10000 and up, call for quote.

MOUSER STOCK NO.	Vishay Part No.	Termination	Price Each						
			1	10	50	100	1000	2000	5000
71-FRJ-50-0	FRJ50R36	Tin/Lead							
71-FRJ50-0-E3	FRJ50E36	Lead Free							