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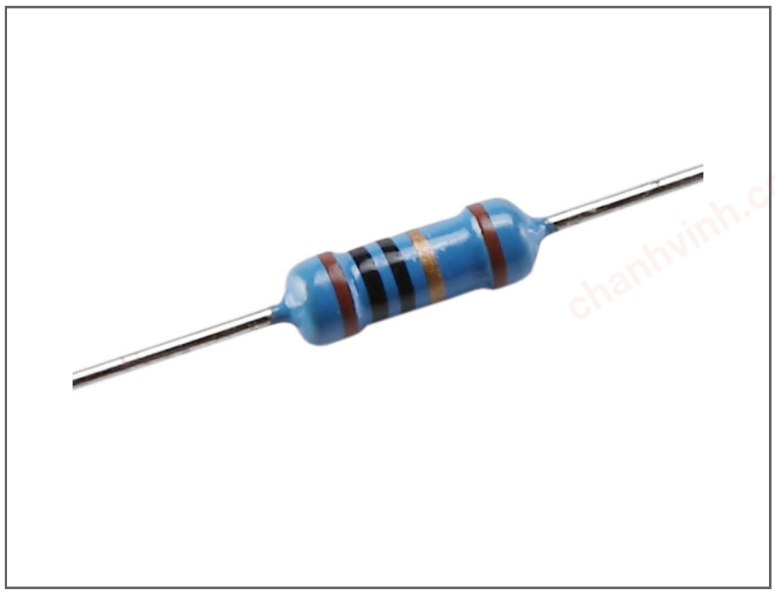
Features

- Excellent overall stability
- Very tight tolerance down to ±0.05%
- Extremely low TCR down to ±5 PPM/°C
- High power rating up to 3 Watts
- Excellent ohmic contact

RS PRO Metal Film Leaded Precision Resistor

RS Stock No.:

0327886, 0327887, 0327889, 0327890, 0327892, 0327893, 0327895, 0327896, 0327898, 0327899, 0327900, 0327902, 0327903, 0327905, 0327906, 0327907, 0327909, 0327911, 0327912, 0327913, 0327915, 0327916, 0327918, 0327919



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

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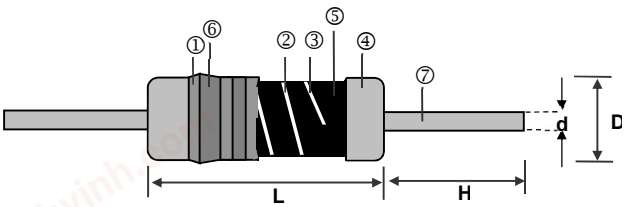
Metal Film Leaded Precision Resistors

Product Description

Applications Include:

- Telecommunications
- Medical Equipment

Construction

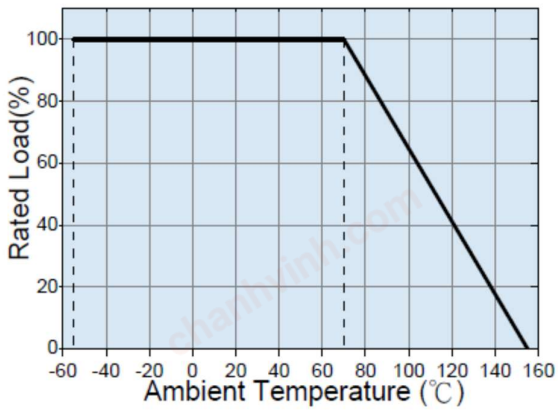


①	Insulation Coating	⑤	Resistor Layer
②	Trimming Line	⑥	Marking
③	Ceramic Core	⑦	Lead Wire
④	Electrode Cap		

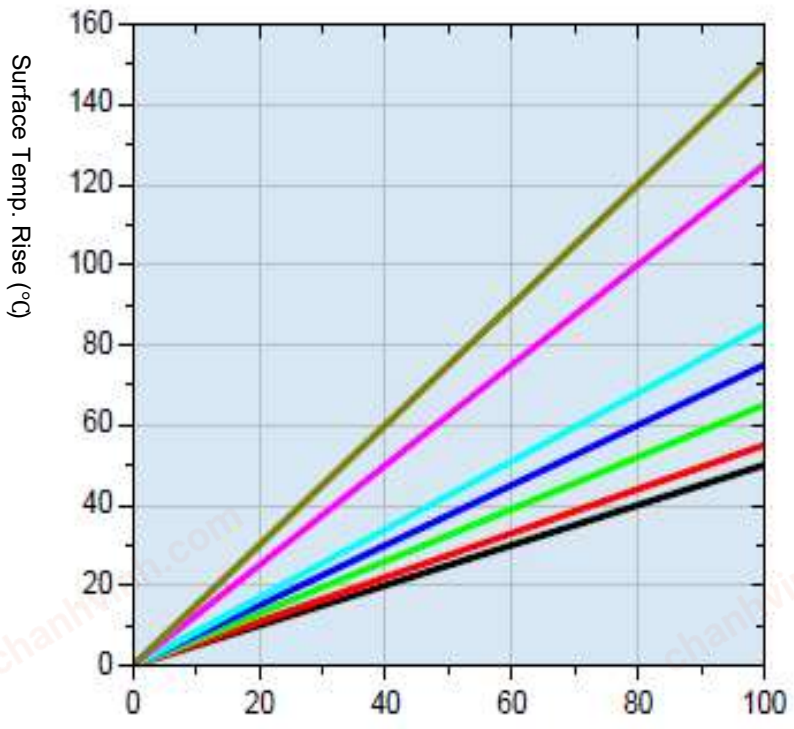
Type	RS Article	L	D	H	d	Weight (g) (1000pcs)
RSPMFR0623	0327886 0327887 0327889 0327890 0327892 0327893 0327895 0327896 0327898 0327899 0327900 0327902 0327903 0327905 0327906 0327907 0327909 0327911 0327912 0327913 0327915 0327916 0327918 0327919 0327921	6.3±0.5	2.3±0.3	28±3.0	0.55±0.03	150

Metal Film Leaded Precision Resistors

Derating Curve



Hot-Spot Temperature



Metal Film Leaded Precision Resistors

Part Number Make Up

RSPMFR	0318	B	T	C	W	1001
Product Type	Dimensions (L×D)	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance
	0623: 6.3x2.3	F: ±1%	A: Ammo	D: ±50	F: 3/5W	R100: 0.1Ω 0010: 1Ω 1000: 100Ω 2201: 2200Ω 1001: 1KΩ 1004: 1MΩ

Electrical Specifications

Item / Type	Power Rating at 70°C	Operating Temp. Range	Max. Operating Voltage	Max. Overload Voltage	Voltage Proof	Resistance Range ±0.05%	±0.1%	±0.25%	±0.5%	±1%	TCR (PPM/°C)
0623	1/4W	-55 ~ +155°C	250V	500V	500V	10Ω-1MΩ				-	±5
						10Ω-1MΩ				100Ω-22KΩ	±10
						10Ω-1MΩ	10Ω-1MΩ	10Ω-499KΩ			±15
						10Ω-1MΩ	10Ω-1MΩ				±25
						-	10Ω-1MΩ		10Ω-4.99MΩ	10Ω-10MΩ	±50
						-	-	10Ω-1MΩ	10Ω-4.99MΩ	0.1Ω-10MΩ	±100

Operating Voltage=√(P*R) or Max. operating voltage listed above, whichever is lower.
Overload Voltage=2.5*√(P*R) or Max. overload voltage listed above, whichever is lower.
Value Range for standard resistance，below or over this resistance on request.

High Power & Ultra High Power Rating Electrical Specifications

Item / Type	Power Rating at 70°C	Operating Temp. Range	Max. Operating Voltage	Max. Overload Voltage	Voltage Proof	Resistance Range ±0.05%	±0.1%	±0.25%	±0.5%	±1%	TCR (PPM/°C)
0623	1/2W	-55 ~ +155°C	300V	500V	500V	10Ω-1MΩ				-	±5
						10Ω-1MΩ				100Ω-22KΩ	±10
						10Ω-1MΩ		10Ω-499KΩ			±15
						10Ω-1MΩ					±25
						-	10Ω-1MΩ		10Ω-4.99MΩ	10Ω-10MΩ	±50

Metal Film Leaded Precision Resistors

						-	10Ω-1MΩ	10Ω-4.99MΩ	0.1Ω-10MΩ	±100
	3/5W		350V	500V	500V	-	100Ω-22KΩ			±10
						-	10Ω-499KΩ			±15
						-	10Ω-1MΩ			±25
						-	10Ω-1MΩ	10Ω-4.99MΩ	10Ω-10MΩ	±50
						-	10Ω-1MΩ	10Ω-4.99MΩ	0.1Ω-10MΩ	±100

Operating Voltage=√(P*R) or Max. operating voltage listed above, whichever is lower.
Overload Voltage=2.5*√(P*R) or Max. overload voltage listed above, whichever is lower.
Value Range for standard resistance，below or over this resistance on request.

Environmental Specifications

Item	Requirement	Test Method
Resistance Value	1Ω-10MΩ	**IEC-60115-1 4.5** Measure at a distance of 10mm from the cap end
Short Time Overload	±(0.25%+0.05Ω)	**IEC-60115-1 4.13** 2.5 times RCWV for 5 seconds
Insulation Resistance	＞1000MΩ	**IEC-60115-1 4.6** The measure was executed by V-Block methods
Endurance	±(1.5%+0.05Ω)	**IEC-60115-1 4.25** 70±2°C, at RCWV (or Umax., whichever less) for 1000 hrs with 1.5 hrs “ON” and 0.5 hrs “OFF”
Damp Heat, Steady State	±(1.5%+0.05Ω)	**IEC-60115-1 4.24** 40±2°C, 90~95% R.H., for 56 days , loaded with 0.1 times RCWV (or Umax. whichever less)
Solderability	95% min. Coverage	**IEC-60115-1 4.17** 245±5°C for 3±0.5 seconds
Voltage Proof	By Type	**IEC-60115-1 4.7** In V-Block for 60 seconds
Temperature Coefficient	By Type	**IEC-60115-1 4.8** Resistance value at room temperature and room Temperature(+100°C)
Periodic-Pulse Overload Test	±(0.75%+0.05Ω)	**IEC-60115-1 4.39** 4 times RCWV(or Umax., whichever less) for 10000 cycles with 1sec “ON” and 25 sec “OFF”
Solvent Resistance of Marking	No obvious deterioration of coatings and markings	**IEC-60115-1 4.30** IPA for 5±0.5 min. with ultrasonic
Robustness of Terminations	Tensile: ≧ 2.5kg(24.5N)	**IEC-60115-1 4.16** Direct Load for 10 sec. In the direction off the terminal leads
Resistance to Soldering Heat	0318: ±(0.75%+0.05Ω) 0623&0932: ±(0.5%+0.05Ω) 1145&1550: ±(0.25%+0.05Ω)	**IEC-60115-1 4.18** The solder iron heated to 260°C±5°C and applied to the termination for a duration of 10±1 seconds
Temperature Cycling	±(0.75%+0.05Ω)	**IEC-60115-1 4.19** -55°C/125°C with 5 cycles. the duration at each temperature 30 min

RCWV(Rated continuous working voltage)= √(P*R) or Max. Operating voltage whichever is lower

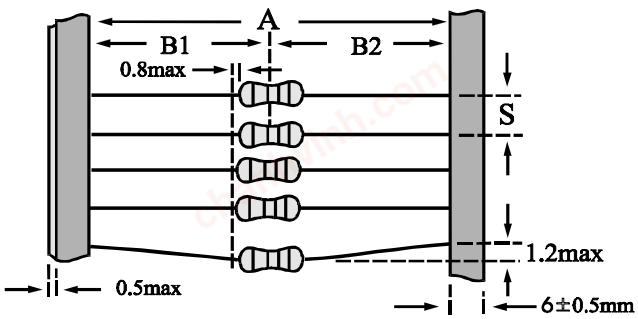
■ **Storage Temperature: 25±10°C; Humidity < 80%RH**

Metal Film Leaded Precision Resistors

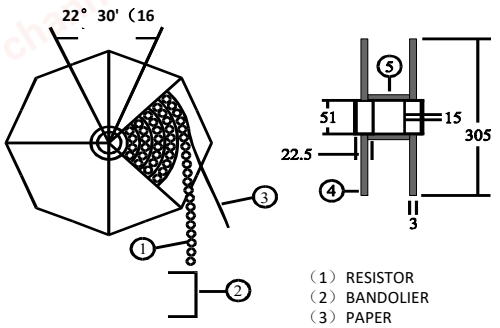
Taping/Packing Specification

1.Standard Type (Reel & Ammo)

Packing Methods



Reel Packing

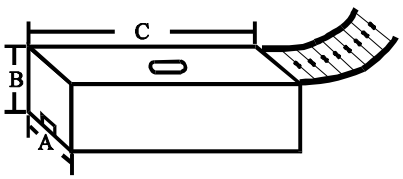


300mm leader at

（1）RESISTOR
（2）BANDOLIER
（3）PAPER
（4）FLANGE
（5）CYLINDER

Packaging / Type	Packing Methods			Reel Packing	
	A	B1-B2 Max	S	Across Flange (A)	Qty
0623	52+1/-0	1.2	5±0.3	72	5,000
	26+0.5/-0	1.0			
	52+1/-0				

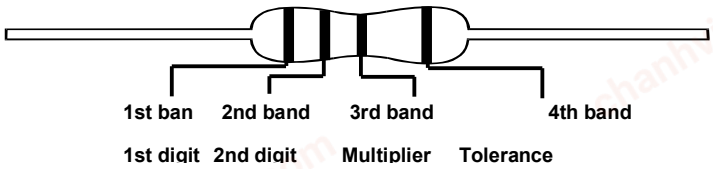
Ammo Packing

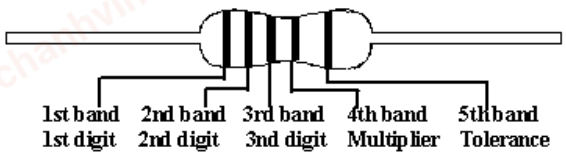


Packaging / Type	Packing Methods			Ammo Packing			
	A	B1-B2 Max	S	A	B	C	Qty
0623	52+1/-0	1.2	5±0.3	79±2	100±3	257±5	5,000
	26+0.5/-0	1.0		52±2	109±3	252±5	

Metal Film Leaded Precision Resistors

Marking & Resistance Tolerance





Cold	Digit	Multiplier	Tolerance	
Without	-	-	±20%	M
Silver	-	10^{-2}	±10%	K
Gold	-	10^{-1}	±5.0%	J
Black	0	10^{0}	-	-
Brown	1	10^{1}	±1.0%	F
Red	2	10^{2}	±2.0%	G
Orange	3	10^{3}	-	-
Yellow	4	10^{4}	-	-
Green	5	10^{5}	±0.50%	D
Blue	6	10^{6}	±0.25%	C
Violet	7	10^{7}	±0.10%	B
Grey	8	10^{8}	±0.05%	A
White	9	10^{9}	-	-

±1.00% ±0.50% ±0.25% ±0.10%	E-24	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1
±1.00% ±0.50%	E-96	1.00	1.02	1.05	1.07	1.10	1.13	1.15	1.18	1.21	1.24	1.27	1.30	1.33	1.37	1.40	1.43	1.47	1.50	1.54	1.58	1.62	1.65	1.69	1.74
		1.78	1.82	1.87	1.91	1.96	2.00	2.05	2.10	2.15	2.21	2.26	2.32	2.37	2.43	2.49	2.55	2.61	2.67	2.74	2.80	2.87	2.94	3.01	3.09
		3.16	3.24	3.32	3.40	3.48	3.57	3.65	3.74	3.83	3.92	4.02	4.12	4.22	4.32	4.42	4.53	4.64	4.75	4.87	4.99	5.11	5.23	5.36	5.49
		5.62	5.76	5.90	6.04	6.19	6.34	6.49	6.65	6.81	6.98	7.15	7.32	7.50	7.68	7.87	8.06	8.25	8.45	8.66	8.87	9.09	9.31	9.53	9.76
±0.25% ±0.10%	E-192	10.0	10.1	10.2	10.4	10.5	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	13.0	13.2
		13.3	13.5	13.7	13.8	14.0	14.2	14.3	14.5	14.7	14.9	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.5	16.7	16.9	17.2	17.4	17.6
		17.8	18.0	18.2	18.4	18.7	18.9	19.1	19.3	19.6	19.8	20.0	20.3	20.5	20.8	21.0	21.3	21.5	21.8	22.1	22.3	22.6	22.9	23.2	23.4
		23.7	24.0	24.3	24.6	24.9	25.2	25.5	25.8	26.1	26.4	26.7	27.1	27.4	27.7	28.0	28.4	28.7	29.1	29.4	29.8	30.1	30.5	30.9	31.2
		31.6	32.0	32.4	32.8	33.2	33.6	34.0	34.4	34.8	35.2	35.7	36.1	36.5	37.0	37.4	37.9	38.3	38.8	39.2	39.7	40.2	40.7	41.2	41.7
		42.2	42.7	43.2	43.7	44.2	44.8	45.3	45.9	46.4	47.0	47.5	48.1	48.7	49.3	49.9	50.5	51.1	51.7	52.3	53.0	53.6	54.2	54.9	55.6
		56.2	56.9	57.6	58.3	59.0	59.7	60.4	61.2	61.9	62.6	63.4	64.2	64.9	65.7	66.5	67.3	68.1	69.0	69.8	70.6	71.5	72.3	73.2	74.1
		75.0	75.9	76.8	77.7	78.7	79.6	80.6	81.6	82.5	83.5	84.5	85.6	86.6	87.6	88.7	89.8	90.9	92.0	93.1	94.2	95.3	96.5	97.6	98.8