Data Sheet

Customer:	
Product:	**Metal Oxide Film Leaded Resistor — MOF Series**
Part No.:	**0623/0932/1145/1550/1765/2485**
Issued Date:	**31-Mar-25**
Edition:	**REV.B3**



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31-Mar-25	31-Mar-25	31-Mar-25	31-Mar-25	
Mandy Chang	*Ben Chang*	*Ben Chang*		

Metal Oxide Film Leaded Resistor



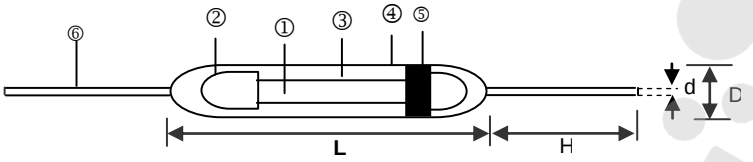
■Features

- Excellent Long-Time stability
- Complete Flameproof Construction UL–94V0
- Wide resistance range : 0.1Ω~1MΩ
- Controlled temperature coefficient
- Resistance standard tolerance: ±5% (consult factory for ±2%, 1%)
- Coating and marking resist trichlorethylene , freon , and other cleaning agents

■Applications

- Telecommunication
- Medical Equipment

■Construction



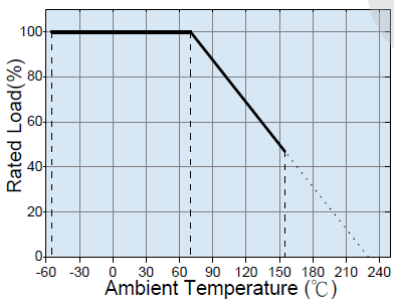
①	Ceramic Rod	④	Non-flame Paint With Sol Vent-proof
②	Tinned Iron Caps	⑤	Color Code
③	Metal Oxide Film	⑥	Lead Wire

■Dimensions

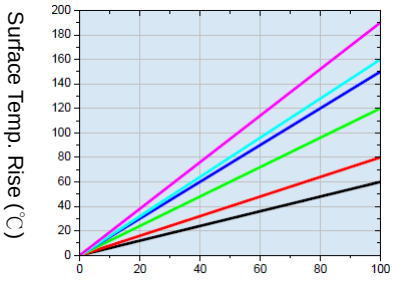
Unit: mm

Type	L	D	H	d	Weight (g) (1000pcs)
MOF0623	6.3±0.5	2.3±0.3	28±3.0	0.55±0.03	156
MOF0932	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	355
MOF1145	11.5±1.0	4.5±0.5	35±3.0	0.78±0.03	760
MOF1550	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	1040
MOF1765	17.5±1.0	6.0±0.5	35±3.0	0.78±0.03	1800
MOF2485	24.5±1.0	8.0±0.5	35±3.0	0.78±0.03	4000

■Derating Curve



■Hot-Spot Temperature



MOF2485
MOF1765
MOF1550
MOF1145

MOF0932
MOF0623

■Part Numbering

MOF	0623	F	A	G	U	1001	MA
Product Type	Dimensions (L×D)	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance	Special
	0623: 6.3x2.3 0932: 9.0x3.2 1145: 11.5x4.5 1550: 15.5x5.0 1765: 17.5x6.0 2485: 24.5x8.0	F: ±1% G: ±2% J: ±5%	A: Ammo B: Bulk T: Taping Reel	G: ±300	D: 5W R: 3W S: 2W T: 1W U: 1/2W V: 1/4W	R100: 0.1Ω 0010: 1Ω 1000: 100Ω 2201: 2200Ω 1001: 1KΩ 1004: 1MΩ	: Standard MA: MA-type MC: MC-type FA: FA-type FB: FB-type FC: FC-type

■Standard Electrical Specifications

Item / Type	Power Rating at 70℃	Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range			TCR (PPM/℃)
						±1%	±2%	±5%	
0623	1/4W	-55 ~ +235°C	200V	350V	350V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	±300
0932	1/2W		250V	400V	350V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1145	1W		500V	600V	500V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1550	2W		500V	600V	500V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1765	3W		500V	1000V	750V	0.1Ω – 1MΩ	0.1Ω – 1MΩ	0.1Ω - 1MΩ	
2485	5W		750V	1000V	750V	0.1Ω – 1MΩ	0.1Ω – 1MΩ	0.1Ω - 1MΩ	

■High Power Rating Electrical Specifications

Item / Type	Power Rating at 70℃	Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range			TCR (PPM/℃)
						±1%	±2%	±5%	
0623	1/2W	-55 ~ +235°C	250V	400V	350V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	±300
0932	1W		300V	500V	400V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1145	2W		500V	600V	500V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1550	3W		500V	800V	600V	0.1Ω – 1MΩ		0.1Ω – 1MΩ	
1765	5W		700V	1000V	750V	0.1Ω – 1MΩ	0.1Ω – 1MΩ	0.1Ω - 1MΩ	

Operating Voltage=$\sqrt{}$(P*R) or Max. operating voltage listed above, whichever is lower.

Overload Voltage=2.5*$\sqrt{}$(P*R) or Max. overload voltage listed above, whichever is lower.

■For resistance value out of above range is by request. Below 10Ω and over 51K(excluded) are using alloy film.

■Resistor body color: Standard Power Rating: Grey

High Power Rating : Grey or Pink are available

■Environmental Characteristics

Item	Requirement	Test Method
Resistance Value	0.1Ω – 1MΩ	**IEC-60115-1 4.5** Measure at a distance of 10mm from the cap end
Short Time Overload	±(1%+0.05Ω) for standard power ±(2%+0.05Ω) for high power	**IEC-60115-1 4.13** 2.5 times RCWV for 5 seconds
Insulation Resistance	＞1000MΩ	**JIS-C-5202 4.6** The measure was executed by V-Block methods
Endurance	±(5%+0.05Ω)	**IEC-60115-1 4.25** 70±2°C, RCWV(or Umax., whichever less) for 1000 hrs with 1.5 hrs “ON” and 0.5 hrs “OFF”
Damp Heat, Steady State	±(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	±(2%+0.05Ω)	**IEC-60115-1 4.39** 4 times RCWV(or Umax., whichever less) for 10000 cycles with 1second “ON” and 25 seconds “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 seconds In the direction off the terminal leads
Temperature Cycling	±(1%+0.05Ω)	**IEC-60115-1 4.19** -55℃/155℃ with 5 cycles the duration at each temperature 30 min
Resistance to Soldering Heat	±(1%+0.05Ω)	**IEC-60115-1 4.18** The solder iron heated to 260°C ±5℃ and applied to the termination for duration of 10±1 seconds.

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

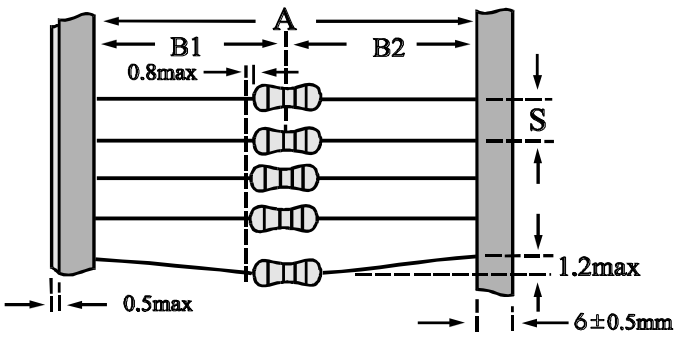
■Storage Temperature: 25±10°C; Humidity < 80%RH

■Shelf life: 1 years Max

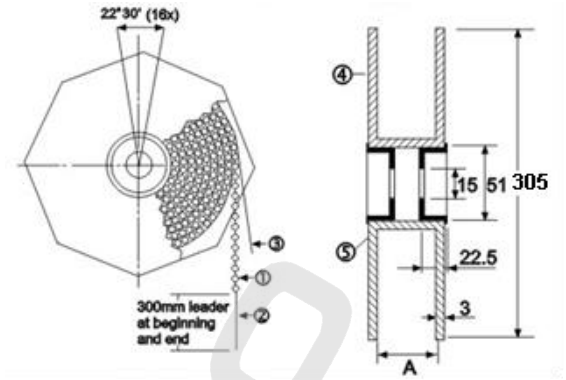
■Taping/Packing Specifications

1. Standard Type (Reel & Ammo)

Packing Methods



Reel Packing

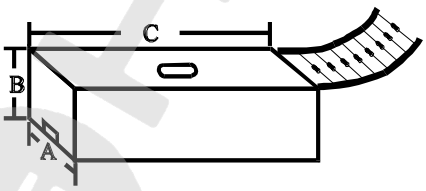


(1) Resistor (4) Flange
(2) Bandolier (5) Cylinder
(3) Paper

Unit: mm

Packaging / Type	Packing Methods			Reel Packing	
	A	*B1-B2*	*S*	Across Flange (A)	Qty
0623	52+1/-0	1.2	5±0.3	72	5,000
	26+0.5/-0	1.0		-	
0932	52+1/-0	1.2	5±0.3	72	2,500
1145	73+1/-0	1.5	5±0.3	95	2,000
	52+1/-0				
1550	73+1/-0	1.5	10±0.8	95	1,000
	52+1/-0				
1765	73+1/-0	1.5	10±0.8	95	1,000
2485	88+1/-0	1.5	10±0.8	110	500

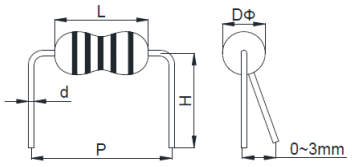
Ammo Packing



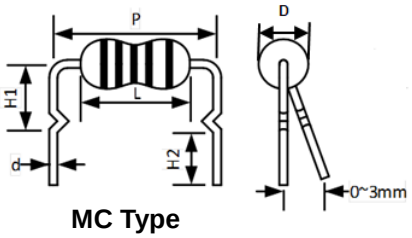
Unit: mm

Packaging / Type	Packing Methods			Ammo Packing			
	A	*B1-B2*	*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	
0932	52+1/-0	1.2	5±0.3	79±2	58±3	257±5	1,000
1145	73+1/-0	1.5	5±0.3	103±2	82±3	262±5	1,000
	52+1/-0			81±2	85±3	256±5	
1550	73+1/-0	1.5	10±0.8	103±2	96±3	265±5	1,000
	52+1/-0			82±2	108±3	258±5	
1765	73+1/-0	1.5	10±0.8	103±2	82±3	262±5	500
2485	88+1/-0	1.5	10±0.8	115±2	73±3	265±5	250

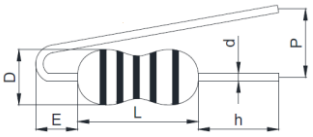
2. Special Type (Bulk)



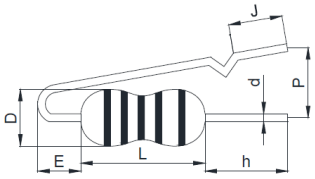
MA Type



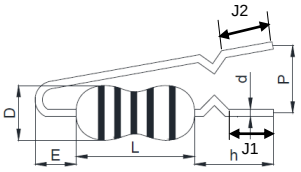
MC Type



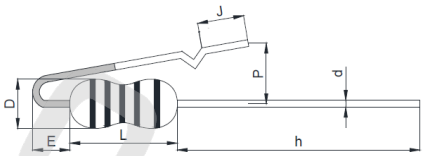
FA Type



FB Type



FC Type

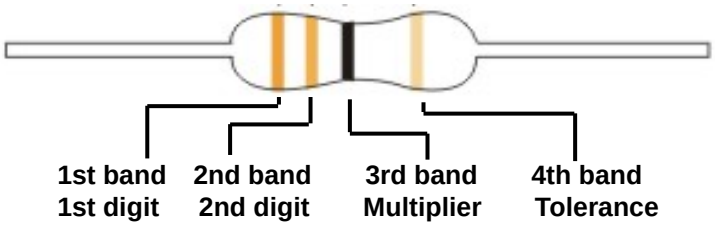


FD Type

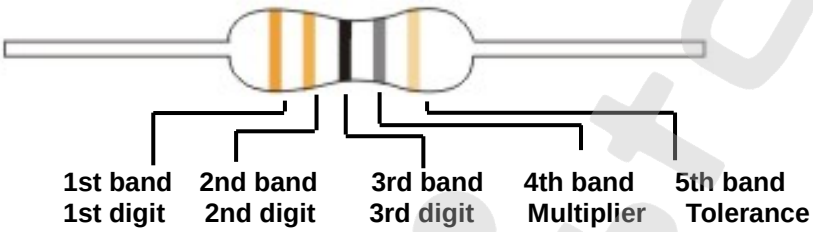
Unit: mm

Codes	Type	P	H /H1/h	H2/G	J/J1/J2	t	D	L	d	E
0623	MA	10±1	10.0±1	-	-	-	2.3±0.3	6.3±0.5	0.55±0.03	-
	FD	5~15	27.0±2		12±2	-	2.3±0.3	6.3±0.5	0.55±0.03	3±1
0932	MA	12.5±1	10.0±1	-	-	-	3.2±0.5	9.0±0.5	0.65±0.03	-
	MC	12.5±1	6.5±2	3.5±2	-	-	3.2±0.5	9.0±0.5	0.65±0.03	-
	FA	5~15	5.0±2	-	-	-	3.2±0.5	9.0±0.5	0.65±0.03	3±1
	FB	5~15	4.0±2		3±2	-	3.2±0.5	9.0±0.5	0.65±0.03	3±1
	FC	5~15	10.0±3	-	4±2	-	3.2±0.5	9.0±0.5	0.65±0.03	3±1
1145	MA	15±1	12.5±1	-	-	-	4.5±0.5	11.5±1.0	0.78±0.03	-
	MC	15±1	9.5±2	4.5±2	-	-	4.5±0.5	11.5±1.0	0.78±0.03	-
	FA	5~15	5.0±2	-	-	-	4.5±0.5	11.5±1.0	0.78±0.03	3±1
	FB	5~15	4.0±2		3±2	-	4.5±0.5	11.5±1.0	0.78±0.03	3±1
	FC	5~15	10.0±3	-	4±2	-	4.5±0.5	11.5±1.0	0.78±0.03	3±1
1550	MA	20±1	15.0±1	-	-	-	5.0±0.5	15.5±1.0	0.78±0.03	-
	MC	20±1	13.5±2	3.5±2	-	-	5.0±0.5	15.5±1.0	0.78±0.03	-
	FA	5~15	5.0±2	-	-	-	5.0±0.5	15.5±1.0	0.78±0.03	3±1
	FB	5~15	4.0±2		3±2	-	5.0±0.5	15.5±1.0	0.78±0.03	3±1
	FC	5~15	10.0±3	-	4±2	-	5.0±0.5	15.5±1.0	0.78±0.03	3±1
1765	MA	25±1	15.0±1	-	-	-	6.0±0.5	17.5±1.0	0.78±0.03	-
	MC	24±1	6.5±2	4.5±2	-	-	6.0±0.5	17.5±1.0	0.78±0.03	-
	FB	5~15	7.0±3	-	3±2	-	6.0±0.5	17.5±1.0	0.78±0.03	3±1
	FC	5~15	7.0±3	-	4±2	-	6.0±0.5	17.5±1.0	0.78±0.03	3±1
2485	MA	30±1	15.0±1	-	-	-	8.0±0.5	24.5±1.0	0.78±0.03	-
	FC	5~15	7.0±3	-	4±2	-	8.0±0.5	24.5±1.0	0.78±0.03	3±1

■Marking & Resistance Tolerance



±5.00% ±2.00%	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%	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

Cold	Digit	Multiplier	Tolerance	
Without	-	-	-	-
Silver	-	10^{-2}	-	-
Gold	-	10^{-1}	±5%	J
Black	0	10^{0}	-	-
Brown	1	10^{1}	±1%	F
Red	2	10^{2}	±2%	G
Orange	3	10^{3}	-	-
Yellow	4	10^{4}	-	-
Green	5	10^{5}	-	-
Blue	6	10^{6}	-	-
Violet	7	10^{7}	-	-
Grey	8	10^{8}	-	-
White	9	10^{9}	-	-

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version B3	Mar 31,2025		-Modify Reel Packing specifications of 0623 -Add Shelf life.