UniOhm

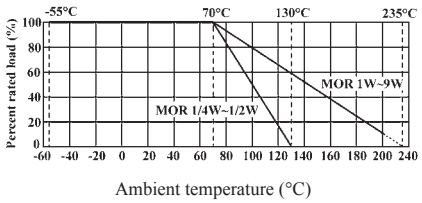
Metal Oxide Film Fixed Resistors

RoHS Compliant

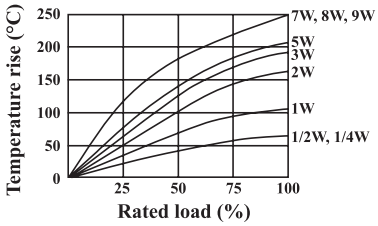
Feature

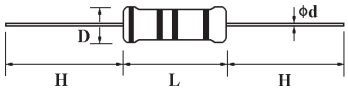
- Excellent flame retardant coating
- Stable performance in diverse environments
- High purity ceramic core
- Meet EIA-RC2655A requirements
- High safety standard

Derating Curve



Heat Rise Chart





Specifications

Part No.	Type	Power Rating At 70°C	Dimension (mm)				Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range
			D Max.	L Max.	d +0.02 -0.05	H±3				
Normal Size										
MOR0W4	MOR-25	1/4W	2.5	7.5	0.6	28	250V	400V	250V	0.1Ω ~ 100KΩ
MOR0W2	MOR-50	1/2W	4	10	0.6	28	250V	400V	250V	0.1Ω ~ 120KΩ
MOR01W	MOR-100	1W	5	12	0.7	28	350V	600V	350V	0.1Ω ~ 150KΩ
MOR02W	MOR-200	2W	5.5	16	0.8	28	350V	600V	350V	0.1Ω ~ 150KΩ
MOR03W	MOR-300	3W	6.5	17.5	0.8	28	500V	800V	500V	0.1Ω ~ 150KΩ
MOR05W	MOR-500	5W	8.5	26	0.8	38	750V	1000V	750V	0.1Ω ~ 180KΩ
MOR07W	MOR-700	7W	8.5	32	0.8	38	750V	1000V	750V	20Ω ~ 150KΩ
MOR08W	MOR-800	8W	8.5	41	0.8	38	750V	1000V	750V	30Ω ~ 200KΩ
MOR09W	MOR-900	9W	8.5	54	0.8	38	750V	1000V	750V	50Ω ~ 200KΩ
Small Size & Extra Small Size										
MOR0S2	MOR-50-S	1/2W	3	7.5	0.6	28	250V	400V	250V	0.1Ω ~ 100KΩ
MOR01S	MOR-100-S	1W	4.5	10	0.7	28	350V	600V	350V	0.1Ω ~ 120KΩ
MOR02S	MOR-200-S	2W	5	12	0.7	28	350V	600V	350V	0.1Ω ~ 150KΩ
MOR03S	MOR-300-S	3W	5.5	16	0.8	28	350V	600V	350V	0.1Ω ~ 150KΩ
MOR05U	MOR-500-SS	5W	6.5	17.5	0.8	28	500V	800V	500V	0.1Ω ~ 150KΩ
MOR05S	MOR-500-S	5W	8	25	0.8	38	500V	800V	500V	0.1Ω ~ 180KΩ

- Standard E-24 series values in ± 5% tolerance
- Standard Gray base color for Normal Size product ; Blue color for Small Size product
- Standard Non – Flammable coating
- Non – Inductive type available on a case to case basis

Performance Specifications

Temperature coefficient	± 350PPM /°C
Short-time overload	Normal Size, ΔR/R ≤ ±(1%+0.05Ω), with no evidence of mechanical damage Small Size, ΔR/R ≤ ±(2%+0.05Ω), with no evidence of mechanical damage
Dielectric withstanding voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Pulse overload	Normal Size, ΔR/R ≤ ±(2%+0.05Ω), with no evidence of mechanical damage Small Size, ΔR/R ≤ ±(5%+0.05Ω), with no evidence of mechanical damage.
Terminal strength	No evidence of mechanical damage.
Resistance to Soldering heat	ΔR/R ≤ ±(1%+0.05Ω), with no evidence of mechanical damage.
Solderability	Min. 95% coverage.
Resistance to solvent	No deterioration of protective coating and markings.
Temperature cycling	ΔR/R ≤ ±(2%+0.05Ω), with no evidence of mechanical damage.
Humidity (Steady state)	ΔR/R ≤ ±(2%+0.05Ω), with no evidence of mechanical damage.
Load life in humidity	ΔR/R: ≤ ±5% for <100KΩ; ±10% for ≥100KΩ.
Load life	ΔR/R: ≤ ±5% for <100KΩ; ±10% for ≥100KΩ.
Flame retardant	No evidence of flaming or arcing.

Ordering Procedure (Example: MOR 1W-S 5% 8.2Ω T/B-1000)

M O R 0 1 S J 0 8 2 J A 1 0

Product Type:
MOR = Metal Oxide Film Fixed Resistors

Wattage:
Normal size:
W4 = 1/4W
W2 = 1/2W
1W = 1W
2W = 2W
3W = 3W
5W = 5W
7W = 7W
8W = 8W
9W = 9W
Small size:
S2= 1/2W-S
1S = 1W-S
2S = 2W-S
3S = 3W-S
5S = 5W-S
Extra small size:
5U = 5W-SS

Special Features:
0 = Standard product
I = Non - Inductive

Tolerance:
G = ±2%
J = ±5%
K = ±10%

Resistance Value:
E-24 series:
The 1st digit will be "0"; the 2nd & 3rd digits are for the significant figures of the resistance and the 4th digit indicate the numbers of zeros following.

Packing Type:
A = Tape/Box
T = Tape/Reel
B = Bulk/Box

Packing Quantity:
1 = 1,000pcs
2 = 2,000pcs
3 = 3,000pcs
4 = 4,000pcs
5 = 5,000pcs
A = 500pcs
B = 2,500pcs
0 = for Bulk/Box packing

Additional Information:
0 = NIL

Four Band Color Code (Available for CFR, MOR, KNP & 2% or 5% of MFR Products)

1 2 3 4

4th Band	
Red	= ±2%
Gold	= ±5%
Silver	= ±10%

1st Band		2nd Band		3rd Band	
Black	= 0	Black	= 0	Black	= Multiply by 1 (10^0)
Brown	= 1	Brown	= 1	Brown	= Multiply by 10 (10^1)
Red	= 2	Red	= 2	Red	= Multiply by 100 (10^2)
Orange	= 3	Orange	= 3	Orange	= Multiply by 1,000 (10^3)
Yellow	= 4	Yellow	= 4	Yellow	= Multiply by 10,000 (10^4)
Green	= 5	Green	= 5	Green	= Multiply by 100,000 (10^5)
Blue	= 6	Blue	= 6	Blue	= Multiply by 1,000,000 (10^6)
Violet	= 7	Violet	= 7	Violet	= Multiply by 10,000,000 (10^7)
Grey	= 8	Grey	= 8	Gold	= Multiply by 0.1 (10^{-1})
White	= 9	White	= 9	Silver	= Multiply by 0.01 (10^{-2})

Five Band Color Code (Available for MFR 1% & FRN Products)

1 2 3 4 5

5th Band	
Violet	= ±0.1%
Blue	= ±0.25%
Green	= ±0.5%
Brown	= ±1%

1st Band		2nd Band		3rd Band		4th Band	
Black	= 0	Black	= 0	Black	= 0	Black	= Multiply by 1 (100)
Brown	= 1	Brown	= 1	Brown	= 1	Brown	= Multiply by 10 (101)
Red	= 2	Red	= 2	Red	= 2	Red	= Multiply by 100 (102)
Orange	= 3	Orange	= 3	Orange	= 3	Orange	= Multiply by 1,000 (103)
Yellow	= 4	Yellow	= 4	Yellow	= 4	Yellow	= Multiply by 10,000 (104)
Green	= 5	Green	= 5	Green	= 5	Green	= Multiply by 100,000 (105)
Blue	= 6	Blue	= 6	Blue	= 6	Blue	= Multiply by 1,000,000 (106)
Violet	= 7	Violet	= 7	Violet	= 7	Violet	= Multiply by 10,000,000 (107)
Grey	= 8	Grey	= 8	Grey	= 8	Gold	= Multiply by 0.1 (10-1)
White	= 9	White	= 9	White	= 9	Silver	= Multiply by 0.01 (10-2)