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# METAL OXIDE FILM FIXED RESISTORS

# Features

- High safety standard, high purity ceramic core
- · Excellent non-flame coating, non-inductive type available
- Stable performance in diverse environment, Meet EIAJ-RC2655A requirements
- Too low or too high ohmic value can be supplied on a case to case basis



#### Ordering Procedure: (Ex.: MOR 1/2W, +/-5%, 100Ω, T/B-1000) 1 Μ 0 R 0 2 J 1 0 1 Α 0 0 **Resistor Type:** MOR = Metal Oxide Film **Resistance Value: Fixed Resistors** E-24 series: the 1<sup>st</sup> digit is "0", the $2^{nd} \& 3^{rd}$ digits are for the significant figures of the resistance and **Special Feature:** the 4<sup>th</sup> indicate the number of zeros: 0 = Standard Product "J" ~ 0.1, "K" ~ 0.01 I = Non-Inductive **Ex.** $4.7\Omega \sim 47J$ , $4.7K\Omega \sim 472$ E-96 series: The 1<sup>st</sup> to 3<sup>rd</sup> digits Wattage: are significant figures of resistance Normal size: W4=1/4W, W2=1/2W, 1W=1W, 2W=2W, and the fourth one denotes number 3W=3W, 5W=5W, 7W=7W, 8W=8W, 9W=9W of zeros. Small size: S2=1/2W-S, 1S=1W-S, 2S=2W-S, 3S=3W-S, **Ex.** 1.33 KΩ = 1331 5S=5W-S Extra small size: 5U=5W-SS Packing Type: A = Tape/Box **Tolerance:** T = Tape/Reel $G = \pm 2\%$ , $J = \pm 5\%$ , $K = \pm 10\%$ B = Bulk/Box= Tape/Box of PT-26 mm Packing Qty: \* More explanation on part no, please see details on pages 79-80. 1 = 1,000 pcs, 2 = 2,000 pcs, 5 = 5,000 pcs, A = 500 pcs, B = 2,500 pcs, 0 = for Bulk/Box packing. **Performance** Specifications ± 350PPM/°C **Temperature coefficient** Normal size, $\Delta R/R \le \pm (1.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. Short-time overload Additional Small size, $\Delta R/R \le \pm (2.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. Information: Dielectric withstanding voltage No evidence of flashover, mechanical damage, arcing or insulation breakdown. 0 = PT-52 mm, NIL for PT-26 Normal size, $\Delta R/R \le \pm (2.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. Pulse overload 8 = PT-58 mm 9 = PT-64 mm Small size, $\Delta R/R \le \pm (5.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. 7 = Lead wire **Terminal strength** No evidence of mechanical damage. (H=38mm) Resistance to soldering heat $\Delta R/R \le \pm (1.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. Solderability Min. 95% coverage Resistance to solvent No deterioration of protective coating and markings. $\Delta R/R \le \pm (2.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. **Temperature cycling** Humidity (Steady state) $\Delta R/R \le \pm (2.0\% + 0.05\Omega)$ , with no evidence of mechanical damage. Load life in humidity $\Delta R/R \le \pm 5\%$ for <100K $\Omega$ , ±10% for ≥ ±100K $\Omega$ Load life $\Delta R/R \le \pm 5\%$ for <100K $\Omega$ , ±10% for ≥ ±100K $\Omega$ Non-Flame No evidence of flaming or arcing.

\*More details, please see pages 77-78.





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Norma	l Size			$\phi d \stackrel{\frac{1}{f}}{ } \xrightarrow{H \to L} H \stackrel{()}{ } \xrightarrow{H \to L} H \stackrel{()}{ } \xrightarrow{H \to H} H$						
Part No.	Style	Power Ratingat 70°C	Dimension (mm)				Max.	Max.	Dielectric	Desistant
			D Max.	L Max.	H ± 3	d ± 0.05	Working Voltage	Overload Voltage	Withstanding Voltage	Resistance Range
MOR0W4	MOR-25	1/4W (0.25W)	2.5	7.5	28	0.54	250V	400V	250V	0.3Ω ~ 50ΚΩ
MOR0W2	MOR-50	1/2W (0.5W)	3.5	10.0	28	0.54	250V	400V	250V	0.3Ω ~ 50ΚΩ
MOR01W	MOR-100	1W	5.0	12.0	28	0.70	350V	600V	350V	0.3Ω ~ 50ΚΩ
MOR02W	MOR-200	2W	5.5	16.0	28	0.70	350V	600V	350V	0.3Ω ~ 50ΚΩ
MOR03W	MOR-300	3W	6.5	17.5	28	0.75	500V	800V	500V	5Ω ~ 100ΚΩ
MOR05W	MOR-500	5W	8.5	26.0	38	0.75	750V	1000V	750V	5Ω ~ 150ΚΩ
MOR07W	MOR-700	7W	8.5	32.0	38	0.75	750V	1000V	750V	20Ω ~ 150ΚΩ
MOR08W	MOR-800	8W	8.5	41.0	38	0.75	750V	1000V	750V	30Ω ~ 200ΚΩ
MOR09W	MOR-900	9W	8.5	54.0	38	0.75	750V	1000V	750V	50Ω ~ 200ΚΩ

# **Small Size**

Part No.	Style	Power Ratingat 70C	Dimension (mm)				Max.	Max.	Dielectric	Desistance
			D Max.	L Max.	H ± 3	d ± 0.05	Working Voltage	Overload Voltage	Withstanding Voltage	Resistance Range
MOR0S2	MOR-50-S	1/2W (0.5W)	2.5	7.5	28	0.54	250V	400V	250V	0.3Ω~50ΚΩ
MOR01S	MOR-100-S	1VV	3.5	10.0	28	0.54	350V	600V	350V	0.3Ω~50ΚΩ
MOR02S	MOR-200-S	2W	5.0	12.0	28	0.70	350V	600V	350V	0.3Ω~50ΚΩ
MOR03S	MOR-300-S	3W	5.5	16.0	28	0.70	350V	600V	350V	0.3Ω~50ΚΩ
MOR05U	MOR-500-SS	5W	6.5	17.5	28	0.75	500V	800V	500V	5Ω ~ 100ΚΩ
MOR05S	MOR-500-S	5W	8.0	25.0	38	0.75	500∨	800V	500V	5Ω ~ 150ΚΩ

## Note:

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

### **Derating Curve**



