OMR Current Sense Resistor

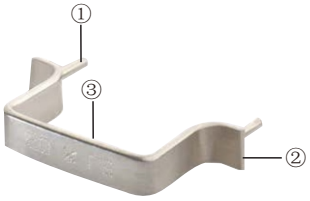
Features

- Welded construction
- Flameproof
- Inductance less than 10 μh
- Solderable copper leads

Applications

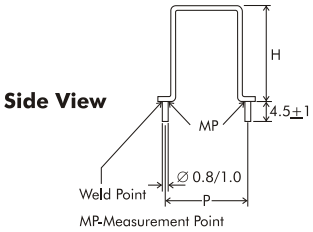
- Current sensing
- Low inductance
- Surge and pulse

Construction



①	Tin plated Copper leads
②	Weld point
③	Resistive element

Dimensions



Type	Power rating at 85℃	Dimensions (mm)	
		P±1.0	Hmax
OMR-0.5	0.5W	10.0	7.0
OMR-1	1W	10.0	11.0
OMR-1A	1W	15.0	9.0
OMR-1.5	1.5W	10.0	17.0
OMR-1.5A	1.5W	15.0	15.5
OMR-1.5B	1.5W	20.0	12.5
OMR-3	3W	10.0	18.0
OMR-3A	3W	15.0	16.0
OMR-3B	3W	20.0	13.0
OMR-5W	5W	20.0	26.0

Note:
-For 0.5W - 1.5W the terminations will be tin plated copper Ø0.8mm.
-For 3W - 5W the terminations will be tin plated copper Ø1.0mm.

Ordering Information

Example:

OMR-1	1	F	R01	C
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance Value	TCR

(1)Type:OMR SERIES

(2)Power Rating: 1=1W、3=3W、5=5W

(3)Tolerance: F=±1%、G=±2%、H=±3%、J=±5%、K=±10%

(4)Resistance Value:R10=0.01Ω、R003=0.003Ω

(5)TCR:±20ppm/℃

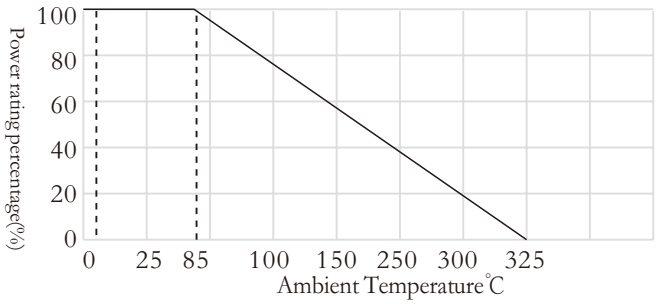
Reference Standards

IEC 60115-1

Applications And Ratings

Type	Power rating at 85℃	Resistance Range	
		min.	max.
OMR-0.5	0.5W	R003	R051
OMR-1	1W	R003	R068
OMR-1A	1W	R0022	R068
OMR-1.5	1.5W	R002	R10
OMR-1.5A	1.5W	R002	R10
OMR-1.5B	1.5W	R002	R10
OMR-3	3W	R002	R10
OMR-3A	3W	R002	R10
OMR-3B	3W	R002	R10
OMR-5W	5W	R0015	R10

Derating Curve



Performance Characteristics

Parameter / Performance Test & Test Method	Performance Requirements
Power Rating (Rated Ambient Temperature)	Full power dissipation at 85℃ and linearly derated to zero at +325℃
Insulation	Not Insulated
Resistance Tolerance	±10%[K]; ±5%[J]; ±3%[H]; ±2%[G]; ±1%[F]
Temperature Range	-55℃ to+325℃ with suitable derating as per derating curve above
Voltage Rating / Limiting Voltage / Max. Working Voltage	$\sqrt{P \times R}$
Short time Overload (5 x Rated Power for 5 Secs.)	ΔR ± [0.75 %R0 + R0005]- Average ΔR ± [1.25 %R0 + R0005]- For resistance values near maximum range
Temperature Coefficient of Resistance (Measured from -55℃ to +125℃ referenced to +30℃)	TCR To ±20 ppm/℃ [Depending on resistance value]
Damp Heat (Steady State) (40℃ at 93 % R.H. for 1000 Hrs. – no load applied)	ΔR ± [0.5 %R0 + R0005] – Average
Endurance – Load Life [70℃ with limiting voltage -1.5 hours on / 0.5 hours off for 1000 hours]	ΔR ± [2.75 %R0 + R0005]-Average
Resistance to Soldering heat - (260°C-270°C for 10 Secs)	Δ R ± [0.2 % R0+ R0005]-Typical
Solderability (As per IEC pub. 60068-2-20)	Must meet the requirements laid down