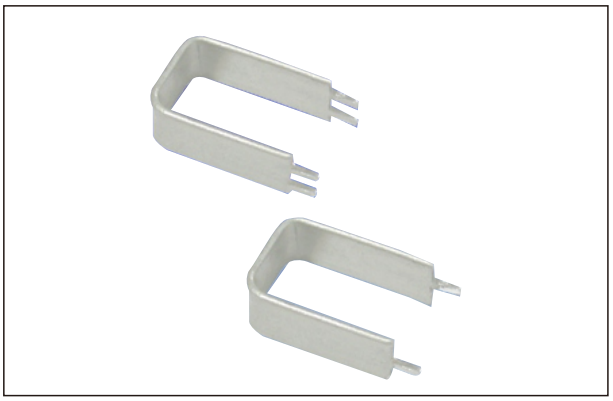
FLH 低阻值电阻



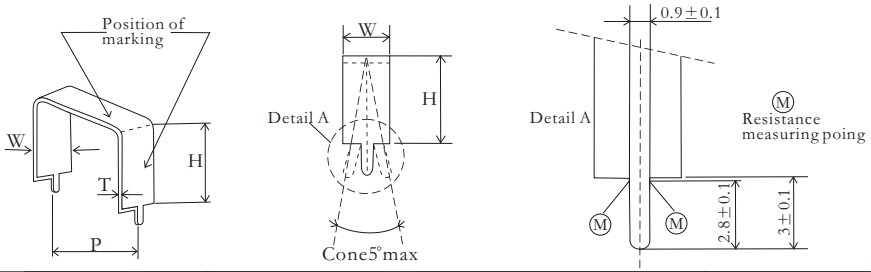
Features

- Low resistance value that withstand high current
-Compatible with automotive part
-Customized product
-Stable performance and perfect reliability

Applications

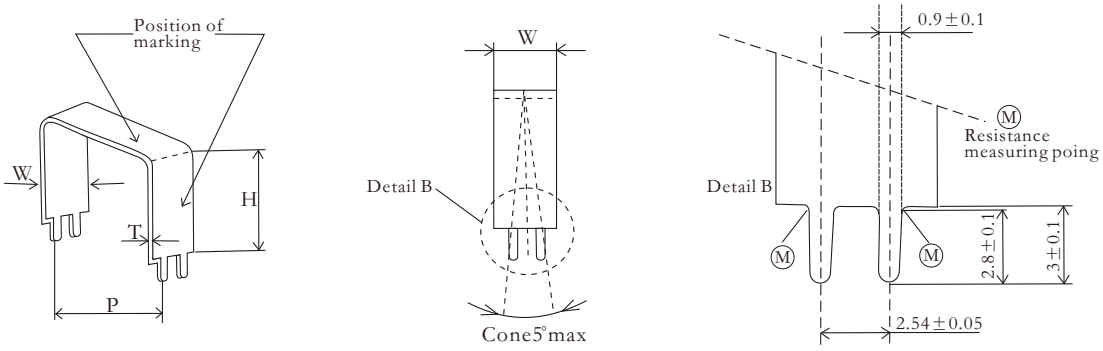
- Current Sensing
- Feedback
- Low Inductance
- Surge And Pulse

Dimensions、Power and Resistance Etc



Type	Power rating at 85℃	Dimensions (mm)				Resistance Value	Weight PER PC(gms)
		W±0.15	T±0.03	H(max)	P±0.5		
FLH1	1.0W	2.0	0.2	14.5	10.0	R047	0.15
FLH1A	1.0W	2.0	0.2	11.75	15.0	R047	0.15
FLH1	1.0W	2.0	0.2	15.0	10.0	R051	0.16
FLH1A	1.0W	2.0	0.2	12.75	15.0	R051	0.16
FLH1.5	1.5W	3.0	0.15	14.0	10.0	R10	0.16
FLH1.5	1.5W	3.0	0.2	14.45	10.0	R033	0.22
FLH1.5A	1.5W	3.0	0.2	12.0	15.0	R033	0.22
FLH1.5	1.5W	2.0	0.2	23.25	10.0	R068	0.22
FLH1.5A	1.5W	2.0	0.2	20.50	15.0	R068	0.23
FLH2	2.0W	4.0	0.5	14.75	10.0	R01	0.23
FLH2A	2.0W	4.0	0.5	12.0	15.0	R01	0.7
FLH2	2.0W	4.0	0.3	12.75	10.0	R015	0.7
FLH2A	2.0W	4.0	0.3	10.25	15.0	R015	0.43
FLH2	2.0W	4.0	0.2	12.85	10.0	R022	0.43
FLH2A	2.0W	4.0	0.2	10.5	15.0	R022	0.26
FLH2A	2.0W	3.0	0.3	16.5	15.0	R024	0.26
FLH2.5	2.5W	5.0	0.7	12.0	10.0	R005	0.35
FLH2.5A	2.5W	5.0	0.7	9.5	15.0	R005	*
FLH2.5	2.5W	4.0	0.8	16.0	10.0	R0068	*
FLH2.5A	2.5W	4.0	0.8	13.75	15.0	R0068	*

* Where there is a choice between different resistance alloys possible depending on TCR limitations the weight has not been provided.



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Type	Power rating at 85℃	Dimensions (mm)				Resistance Value	Weight PER PC(gms)
		W±0.15	T±0.03	H(max)	P±0.5		
FLH2B	2.0W	4.0	0.2	11.0	15.0	R022	*
FLH2.75B	2.75W	5.0	0.8	12.75	15.0	R005	*
FLH2.75B	2.75W	4.0	0.2	20.5	15.0	R033	*
FLH3.5B	3.5W	5.0	0.7	21.75	15.0	R0068	1.6
FLH4B	4.0W	7.0	0.2	15.25	15.0	R015	*
▲ FLH4BL	4.0W	10.0	0.8	9.8	15.0	R001	*
FLH4.5B	4.5W	9.0	0.2	13.8	15.0	R01	0.81
FLH4.5B	4.5W	10.0	0.5	11.85	15.0	R0033	2.0
▲FLH6.5(5)L	6.5W	10.0	0.8	28.0	5.0	R002	3.25
FLH6.5B	6.5W	9.0	0.2	16.0	15.0	R012	0.8
▲ FLH6.5BL	6.5W	10.0	0.8	21.75	15.0	R0022	3.5
FLH10 (10)	10W	10.0	0.6	10.0	10.0	R002	*
FLH10 (15)	10W	10.0	0.6	15.0	15.0	R003	*

* Where there is a choice between different resistance alloys possible depending on TCR limitations the weight has not been provided.
▲The shunt resistors whose type is suffixed with L are made with a different type of alloy to attain these very low resistance values. In these cases the TCR would be approx 180ppm/℃.

Note:
The shunt resistor types / power rating and resistance value shown above are merely a sample of the wide variety available in this series and represent certain popular types and resistance values.
In case the shunt resistors shown above are not found suitable, then if the requirement is sufficient in volume, KWX can provide a custom solution.
The possibilities based on customers requirement are infinite, however tempered by the reality that the dimensions of the part required are dictated by the ratio between requested power rating and physical size necessary to dissipate the heat generated in working condition. As a rule of thumb, OF series resistors are designed upto a maximum of 10 watts power.

Ordering Information

Example:

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

(1)Type:FLH SERIES

(2)Power Rating: 1=1W、3=3W、5=5W

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

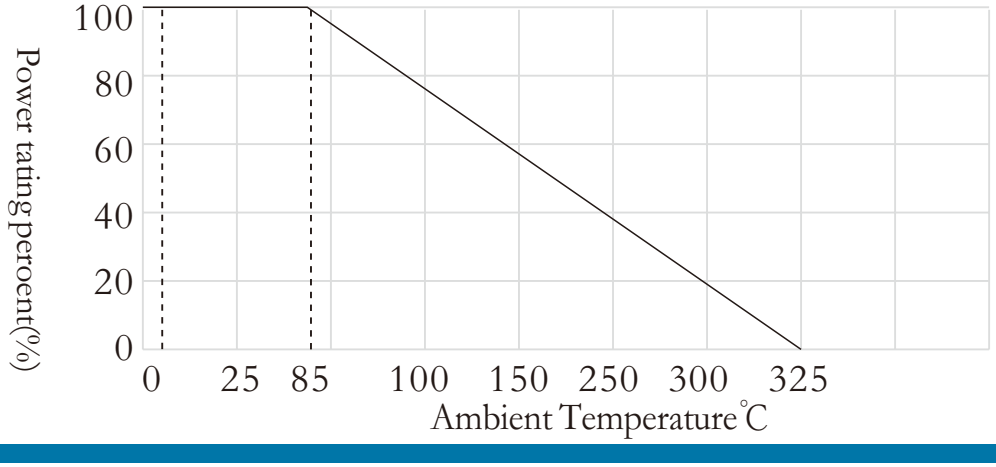
(4)Resistance Value:R10=0.01Ω、R003=0.003Ω

(5)TCR:±20ppm/℃

Reference Standards

IEC 60115-1

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 %R + R0005]- Average ΔR ± [1.25 % R+ R0005]- For resistance values near maximum range
Temperature Co-efficient 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 %R + R0005] – Average
Endurance – Load Life [70℃ with limiting voltage -1.5 hours on / 0.5 hours off for 1000 hours]	ΔR ± [2.75 % R+ R0005]-Average
Resistance to Soldering heat - (260°C-270°C for 10 Secs)	Δ R ± [0.2 % R+ R0005]-Typical
Solderabillity (As per IEC pub. 60068-2-20)	Must meet the requirements laid down