

FLAT TYPE METAL CLAD WIRE-WOUND RESISTORS

Flat type Wire-wound Resistor with a low inductance structure, sealed with heat resistant cement.

Features

- Excellent in heat dissipation
- Can be used as a heater utilizing residual heat as well as a general wire-wound resistor

Type	Wattage Rating (W)		Resistance Range (V)	Resistance Tolerance (%)	Max. Working Voltage (V)	Weight (g)
	Chassis Mounted	Free air				
IRF 100 NC	100	50	1~560	±0.5(D) R≒10Ω	530	155
IRF 150 NC	150	75	1~803		770	200
IRF 200 NC	200	100	1~1040	±1 (F)	1000	245
IRF 250 NC	250	125	1~1350	±2 (G)	1300	290
IRF 300 NC	300	150	1~1590	±5 (J)	1500	335
IRF 400 NC	400	200	1~2270	±10 (K)		430
IRF 500 NC	500	250	1~2800			525

Operating Temp. -55°C~+155°C

Precautions

The heat resistance temperature of the standard product, with not specified lead wire, is limited by the maximum operating temperature of the lead wire (silicon heat resistant wire), + 180° C, so even if the load is within the rated power, reduce the load power by referring to the "Surface Temp. vs Power Load" graph.

It is also possible to specify +400° C heat-resistant wires. See "How to order" below.

Type	Dimensions (mm)				Lead Wire	
	L1±1	L2±0.5	W1±0.5	W2±0.5	1.25mm ²	2mm ²
IRF 100NC	90	70	80	70	1Ω~	-
IRF 150NC	120	100	80	70	1Ω~	-
IRF 200NC	150	130	80	70	4.1Ω~	1~4Ω
IRF 250NC	180	160	80	70	5.1Ω~	1~5Ω
IRF 300NC	210	190	80	70	6.1Ω~	1~6Ω
IRF 400NC	270	250	80	70	8.1Ω~	1~8Ω
IRF 500NC	330	310	80	70	10.1Ω~	1~10Ω

L3=L2/2

*Note

Performance

Parameters	Test Condition	Specification
Dielectric Strength	AC1500V between lead wires and case 1 min *Note	±(1%+0.05Ω)
Short Time Over Load	5×Wattage Rating 5sec	±(1%+0.05Ω)
Insulation Resistance	DC500V between lead wires and case	20MΩ Min.
Temp. Coefficient	+25°C~+155°C	±260ppm/°C
High Temp. High Moisture	JIS C 5201-1 4.24	±(5%+0.1Ω)
Thermal Shock	-55°C · +155°C 5 Cycles	±(1%+0.05Ω)
Load Life (Room Temp.)	Wattage Rating (1.5Hr ON-0.5Hr OFF) 500Hr	±(5%+0.1Ω)

*Note: Dielectric Withstand Voltage: AC2500V, AC3000V & AC5400V are available on request as custom products.

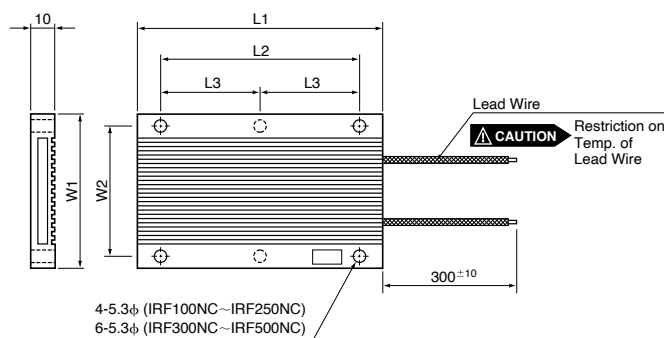
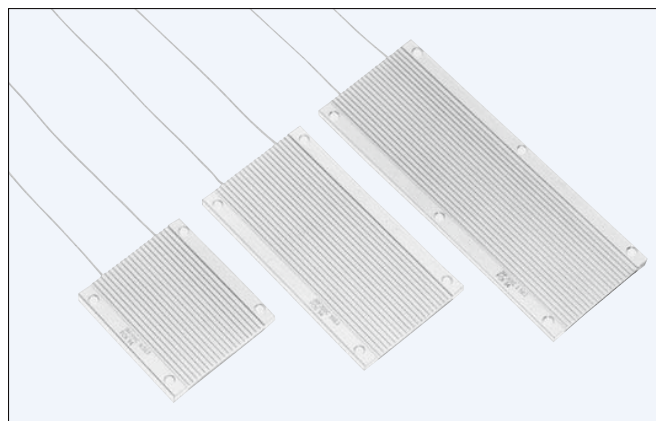
How to order

IRF500NC 100Ω J 400°C

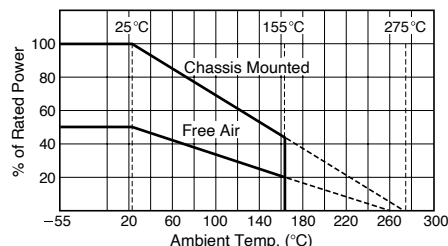
Type	Resistance	Tolerance	Lead Wire
None			Restriction on Temp. of Lead wire. +180°C MAX (Standard)
			220°C : Restriction on Temp. of Lead wire. +220°C MAX
			400°C : Restriction on Temp. of Lead wire. +400°C MAX

Test Chassis Dimensions (mm)	
IRF100NC~IRF250NC	Aℓ 305×305×3t
IRF300NC~IRF500NC	Aℓ 400×400×3t

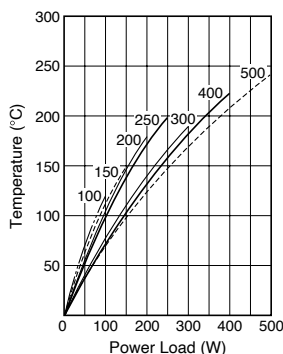
- Standard Resistance E-24 Series J (±5%)
- Order for a single piece accepted for any resistance value within the standard resistance range



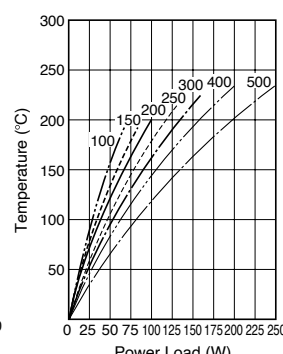
Ambient Temp. Derating Curve



Surface Temperature versus Power Load (on Chassis)



Surface Temperature versus Power Load (Free Air)



Standard Resistance (Stock)

IRF300NC	1	10	30	50	60	100 (Ω)	±5%
IRF500NC	1	10	30	50	60	100 (Ω)	±5%



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