FLAT TYPE METAL CLAD WIRE-WOUND RESISTORS

IRF

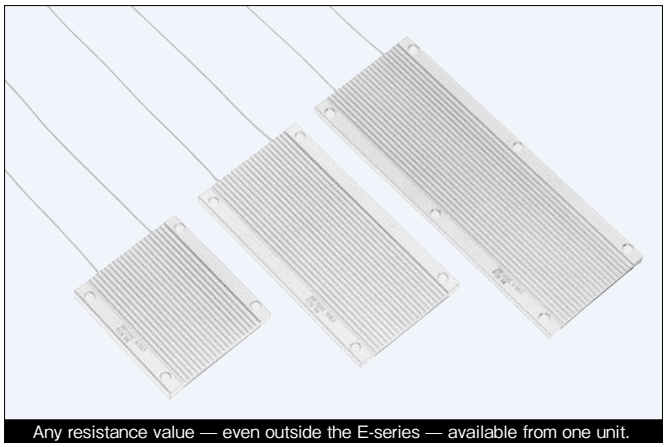
Flat type Wire-wound Resistor with a low inductance structure, sealed with heat resistant cement.

Features

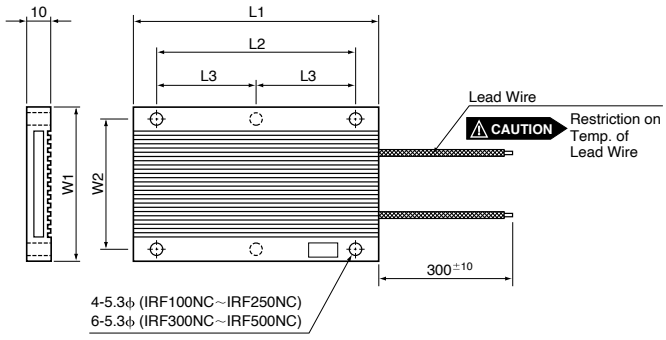
- Excellent in heat dissipation
- Can be used as a heater utilizing residual heat as well as a general wire-wound resistor

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	1～1.04K	±1 (F)	1000	245
IRF 250 NC	250	125	1～1.35K	±2 (G)	1300	290
IRF 300 NC	300	150	1～1.59K	±5 (J)	1500	335
IRF 400 NC	400	200	1～2.27K	±10 (K)		430
IRF 500 NC	500	250	1～2.8K			525

Operating Temp. −55°C～+155°C



Any resistance value — even outside the E-series — available from one unit.



⚠Precautions

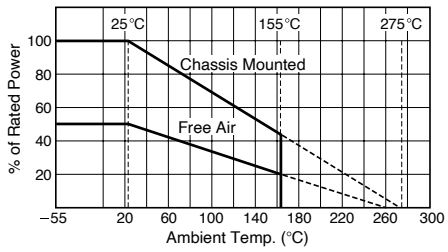
The heat resistance temperature of the standard product, with not specified lead wire, is limited by the maximum operating temperature of the lead wire (silicon heat resistant wire), + 180° C, so even if the load is within the rated power, reduce the load power by referring to the "Surface Temp. vs Power 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	1.25mm²	2mm²
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

Ambient Temp. Derating Curve



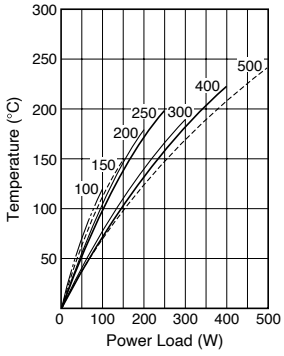
Performance

*Note

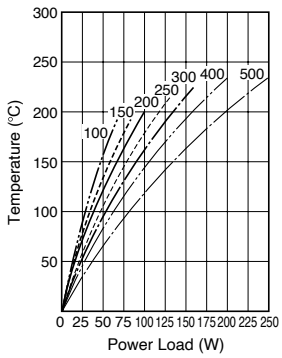
Parameters	Test Condition	Specification
Dielectric Strength	AC1500V between lead wires and case 1 min *Note	±(1%+0.05Ω)
Short Time Over Load	5 ×Wattage Rating 5sec	±(1%+0.05Ω)
Insulation Resistance	DC500V between lead wires and case	20MΩ Min.
Temp. Coefficient	+25°C～+155°C	±260ppm/°C
High Temp. High 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)

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

Surface Temperature versus Power Load (on Chassis)



Surface Temperature versus Power Load (Free Air)



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

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

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

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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