

SPECIFICATION

IRF

SUBMINIATURE POWER RELAY

CONTACT DATA

Contact arrangement	1A / 1C
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	Silver Alloy
Contact rating (Res. load)	10A 120VAC 5A 240VAC 30VDC
Max. switching voltage	277VAC/30VDC
Max. switching current	10A
Max. switching power	2500VA/ 300W
Min. allowing load	100mA 5VDC
Mechanical endurance	1 x 10 ⁷ ops
Electrical endurance	1 x 10 ⁵ ops

COIL DATA

at 20°C

Coil power	200mW / 450mW
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(0.45W)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (mA)	Coil Resistance Ω
3	2.25	0.15	150	20 x (1±10%)
5	3.75	0.25	89.28	55.5 x (1±10%)
6	4.50	0.30	75	80 x (1±10%)
9	6.75	0.45	50	180 x (1±10%)
12	9.00	0.60	37.5	320 x (1±10%)
18	13.50	0.90	25	720 x (1±10%)
24	18.00	1.20	18.75	1280 x (1±10%)
48	36.00	2.40	9.38	4608 x (1±10%)

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. Volt.)		8ms max.
Release time (at nomi. Volt)		5ms max.
Shock resistance	Functional	10G
	Destructive	100G
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		40 ~ 85%
Ambient temperature		-40°C to 105°C
Termination		PCB
Unit weight		Approx. 7g

(0.2W)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (mA)	Coil Resistance Ω
3	2.25	0.15	67	45 x (1±10%)
5	3.75	0.25	40	125 x (1±10%)
6	4.50	0.30	33.3	180 x (1±10%)
9	6.75	0.45	22	405 x (1±10%)
12	9.00	0.60	16.7	720 x (1±10%)
18	13.50	0.90	11.3	1620 x (1±10%)
24	18.00	1.20	8.3	2880 x (1±10%)

Notes : 1) The data shown above are initial values.

ORDERING INFORMATION

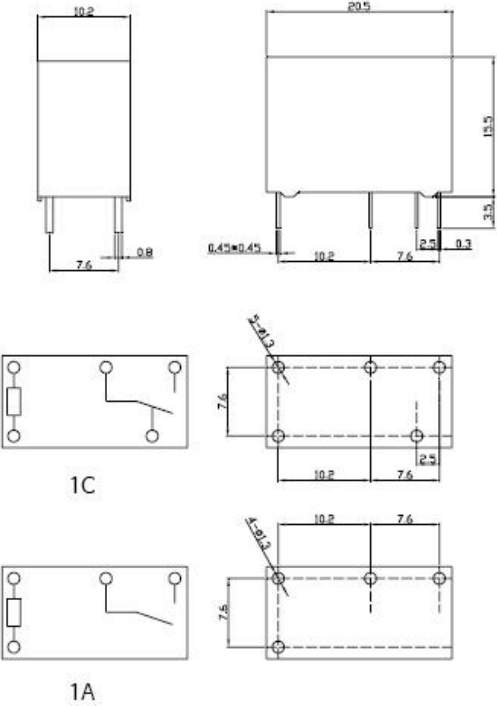
Type	IRF	-1A	-D12	S	L
Contact Form	1A : 1 Form A , 1C : 1 Form C				
Coil Voltage	3, 5, 6, 9, 12, 18, 24, 48 VDC				
Constrution	S=Sealed type				
Coil Power	Nil=0.2W L=0.45W				

SAFETY APPROVAL RATINGS

UL&CUL	10A 12VAC/277VAC 5A240VAC 3A240VAC 3A30VDC etc
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OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit:mm



CHARACTERISTIC CURVES

