

# SPECIFICATION

## IRG

## SUBMINIATURE POWER RELAY

### CONTACT DATA

Contact arrangement	1A	1C
Contact resistance	100mΩ (at 1A 6VDC)	
Contact material	Silver Alloy	
Contact rating (Res. load)	12A 240VAC 15A 120VAC TV-5(5A@120VAC)	10A 240VAC 12A 120VAC / 24VDC TV-5(5A@/ 120VAC)
Max. switching voltage	250VAC/30VDC	
Max. switching current	15A	
Max. switching power	2770VA/240W	
Mechanical endurance	1 x 10 <sup>7</sup> ops	
Electrical endurance	1 x 10 <sup>5</sup> ops	

### CONTACT DATA

Insulation resistance	100MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	1500VAC 1min
	Between open contacts	750VAC 1min
Operate time (at nomi. Volt.)	10ms max.	
Release time (at nomi. Volt)	5ms max.	
Shock resistance	Functional	10G
	Destructive	100G
Vibration resistance	10Hz to 55Hz 1.5mm DA	
Humidity	40% to 85% RH	
Ambient temperature	-40°C to 70°C	
Termination	PCB	
Unit weight	Approx. 13g	
Construction	Wash tight, Flux proofed	

**Notes :** 1) The data shown above are initial values.  
2) Please find coil temperature curve in the characteristic curves below.

### COIL

Coil power	360mW / 450mW
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### COIL DATA

at 23°C

(360mW)				
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Reted Current (mA)	Coil Resistance Ω
3	2.25	0.15	120	25 x (1±10%)
5	3.75	0.25	71.4	69 x (1±10%)
6	4.5	0.3	60	100 x (1±10%)
9	6.75	0.45	40	225 x (1±10%)
12	9	0.6	30	400 x (1±10%)
24	18	1.2	15	1600 x (1±10%)
48	36	2.4	7.5	6400 x (1±10%)

(450mW)				
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Reted Current (mA)	Coil Resistance Ω
3	2.25	0.15	150	20 x (1±10%)
5	3.75	0.25	90	56 x (1±10%)
6	4.5	0.3	75	80 x (1±10%)
9	6.75	0.45	50	180 x (1±10%)
12	9	0.6	37.5	320 x (1±10%)
24	18	1.2	18.7	1280 x (1±10%)
48	36	2.4	9	5120 x (1±10%)

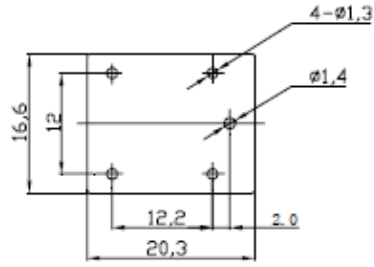
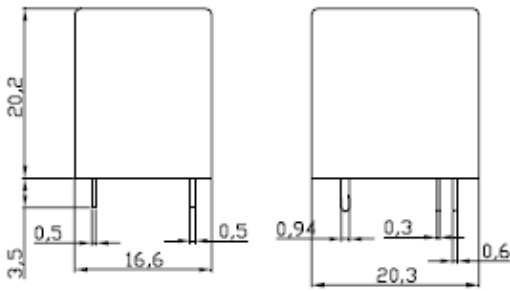
## ORDERING INFORMATION

	<b>IRG</b>	<b>-1A</b>	<b>-D12</b>	<b>S</b>	<b>Nil</b>	
<b>Model</b>						
<b>Contact form</b>	1A : 1 Form A 1C : 1 Form C					
<b>Coil voltage</b>	3, 5, 6, 9, 12, 24, 48 VDC					
<b>Construction</b>	S : Sealed type					
<b>Coil Power</b>	L : 0.45W, Nil : 0.36W					
<b>Insulation System</b>	TBF-1 : Class F, Nil : Standard					
<b>Temperature Range</b>	F : TUV 105°C, Nil : TUV 85°C					

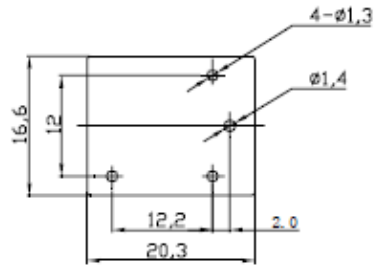
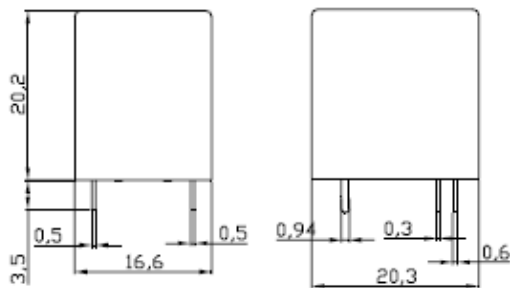
## SAFETY APPROVAL RATINGS

IRG	UL&CUL	1C : 10A 240VAC 12A 120VAC TV-5 120VAC 1A : 12A 120VAC 15A 120VAC TV-5 120VAC	3 to 48VDC
	TUV	1A : 15A 125VAC 12A 240VAC 1C : 15A 125VAC 10A 240VAC	

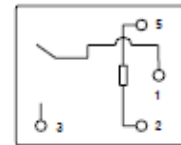
# OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT



Form C



Form A



## CHARACTERISTIC CURVES

