Main Feature

1. 40A switching use relay at ambient temperature of 80°C.
2. Compatible fasten terminal arrangement with this kind of power relay.
3. Simple magnetic circuit to meet mass production for low cost offer.
4. Standard type contact form SPDT and DPST are available for customer's selection.
5. Operating ambient temperature range covers from -30°C to 80°C.

Application

For direct connection with Cell Motors, Transmission etc. and Anti-Locking Brake System.

Contact Rating

- Nominal Load (Resistive Load Cos φ =1)
  Contact Capacity
  1c ..... N.O: 40A at 12VDC.
  N.C.: 30A at 12VDC.
  2a ..... 40A(20A x2) at 12VDC.
  Rated Carrying Current ..... 40 A.
  Max. Allowable Current ..... 40 A.
  Max. Allowable Voltage ..... 30 VDC.
  Max. Allowable Power Force540 W.
  Min. Switching Load ..... DC 5V, 10mA.
- Contact Material ..... Ag Alloy.
- Contact Form..... SPDT & DPST.

Performance (at Initial Value)

- Contact Resistance ..... 100 mΩ Max.@1A,6VDC
- Operate Time..... 10 mSec. Max.
- Release Time ..... 10 mSec. Max.
- Dielectric Strength :
  Between Coil & Contact ..... 500VAC at 50/60 Hz for one minute.
  Between Contacts ..... 1,000VAC at 50/60 Hz for one minute.
- .... Insulation Resistance ..... 100 MegaΩ Min. at 500VDC.
- Max. On/Off Switching :
  Electrical .....30 Ops per Minute.
  Mechanical.....300 Ops per Minute.
- Temperature Range .....-30～85°C
- Humidity Range .....45～80% RH.
- Coil Temperature Rise .....60°C Max.
- Vibration :
  Endurance.....10 to 55 Hz dual amplitude width 2 mm.
  Error Operation .....10 to 55 Hz dual amplitude width 2 mm.
- Shock :
  Endurance .....1,000 m/S^2 Min.
  Error Operation .....50 m/S^2 Min.
- Life Expectancy :
  Mechanical .....10^7 Operations at No Load condition.
  Electrical .....10^5 Operations at Rated Resistive Load.
- Weight.....About 36.5 g.

Accessories & Sockets

- UC3003.....See Page 139
- CS3770 .....See Page 139
- UC3001.....See Page 139

Safety Standard & Its File Number

- NIL.

Coil Specification (at 20°C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
GRL	12	150	80	Abt. 1.8	75% Maximum	5% Minimum	150% but for short time carrying current
	24	75	320				

Ordering Information

GRL - S - 1 12 D M H R1

Options: **Nil**: Standard
R1: Coil parallel with 1/2W resistor
680Ω for Coil Voltage 12VDC
2700Ω for Coil Voltage 24VDC
D1: Coil parallel with diode IN4007 the Positive pole "+" on #85 terminal
D2: Coil parallel with diode IN4007 the Negative pole "-" on #85 terminal

Bracket: **Nil**: No Bracket Standard
H: Dust Cover with Metal Bracket
F: Plastic Bracket Cover

Contact Form: **Nil**: One Form C
M: One Form A
B: One Form B

Coil Type: **D**: Standard DC Coil

Coil Voltage: **12**: 12V, **24**: 24V

Number of Pole: **1**: One Pole
2: Two Poles

Type of Sealing: **S**: Hand Soldered Type

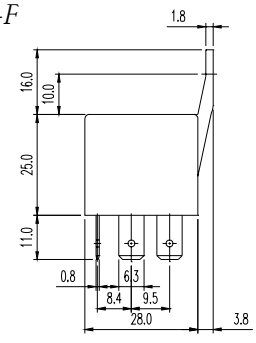
Type: **GRL**

Classification

Model	GRL					
Number of Pole	1 Pole			2 Poles		
Contact Form	1C	1A	1B	2C	2A	2B
No Bracket Standard	GRL-S-1□□D	GRL-S-1□□DM	GRL-S-1□□DB	GRL-S-2□□D	GRL-S-2□□DM	GRL-S-2□□DB
Dust Cover Metal Bracket	GRL-S-1□□DH	GRL-S-1□□DMH	GRL-S-1□□DBH	GRL-S-2□□DH	GRL-S-2□□DMH	GRL-S-2□□DBH
Plastic Bracket Cover	GRL-S-1□□DF	GRL-S-1□□DMF	GRL-S-1□□DBF	GRL-S-2□□DF	GRL-S-2□□DMF	GRL-S-2□□DBF
Coil Additional Parts	Please add your choice Coil Parallel "R1" ," D1" ," D2" at the back of all above-mentioned part number .					

Dimension

GRL-S-F



GRL-S
GRL-S-H