



- General Purpose automotive or industrial relay
- Good inrush current resistance
- Ideal for DC motor control
- High continuous DC current capability
- Optimised for up to 145VDC switching
- Magnet arc blowout feature
- Industry standard terminal layout

ROHS
Compliant ✓

Contacts

Contact arrangement	SPST-NO (1 Form A)
Contact material	AgSnO ₂
Max. switching voltage	DC 145VDC
Min. switching current / voltage	100mA / 12VDC
Rated load - see Fig. 1	DC1 80A @ 12VDC, 60A @ 36VDC, 50A @ 48VDC 30A @ 72VDC, 5A @ 145VDC
Max. switching current	make 150A @ 12.8VDC (3secs)
Initial Contact resistance	<100mΩ, at 0.1A / 6VDC

Coil

Rated voltage	DC 6 ... 50V
Must release voltage	≥0.1U _n
Operating range	See Table 1
Rated power consumption	1.6W; 1.8W with resistor

Insulation

Insulation resistance	100MΩ at 500VDC, 50%RH
Dielectric strength	coil to contact 500Vrms, 1min contact to contact 500Vrms, 1min

General Data

Operating time	typ. 7ms
Release time	typ. 2ms
Electrical life	ops. 1 x 10 ⁵
Mechanical life	ops. 1 x 10 ⁷

Environmental

Ambient temperature	operating -40 to +125°C (above 85°C - consult factory) storage -40 to +155°C
Shock resistance	functional 20g, 11ms destructive 100g
Vibration resistance	DA 1.27mm 10-40Hz / 40-70Hz:5g DA 0.5mm 100-500Hz: 10g
Dimensions	L x W x H 39.1 x 28 x 26mm (excluding terminals)
Weight	approx. 46g

Ordering Code

D G 5 7 C M - 5 0 2 1 - 7 6 - 1 0 1 2 - D R

Series

Contact material

50: AgSnO₂

Contact arrangement

21: SPST-NO (1 N/O, 1 Form A)

Environmental protection

7: In cover, dust cover - IP54

9: Cover with mounting bracket

Connection Mode

5: PCB Terminals

6: Flat Blades

Options 1 (metal mounting bracket)

Blank: No option

M1: Metal mounting bracket fitted

Options 2 (parallel components)

Nil: No option

R: Integral resistor

DR: Integral diode -85, +86 (standard)

D: Integral diode +85, -86 (special order)

Coil Data

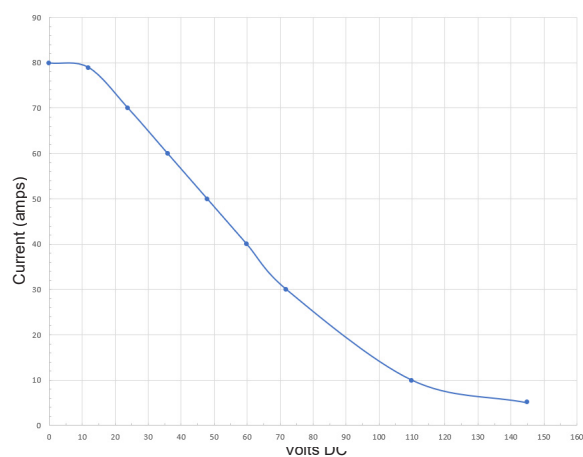
Table 1

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Max. allowable voltage (VDC)	Must release voltage min. (VDC)
1006	6	22	3.6	10.1	0.6
1012	12	90	7.2	20.5	1.2
1024	24	330	14.4	39.1	2.4
1048	48	1440	28.8	80.0	4.8
1050	50	1565	30.0	83.0	5.0

Performance

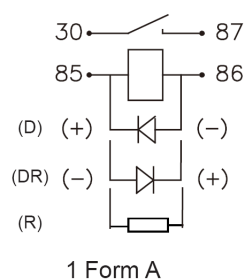
Fig. 1

Max. DC resistive load breaking capacity



Circuit Diagram

Fig. 2

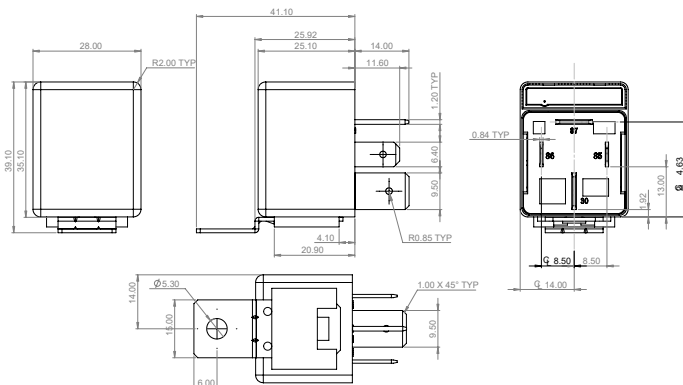
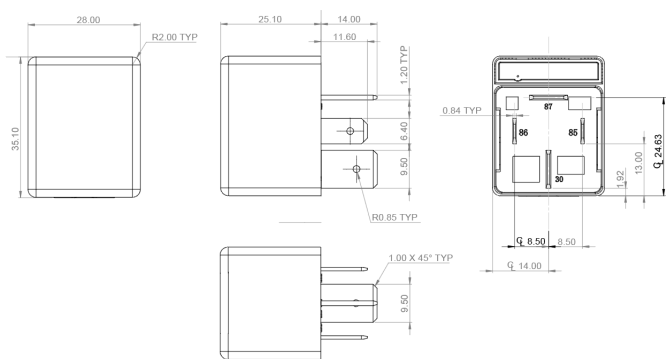


Dimensions

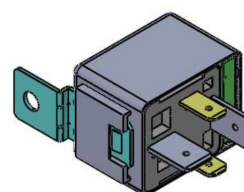
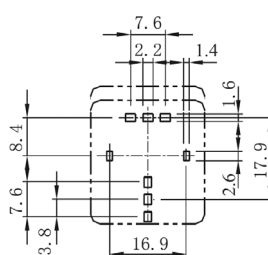
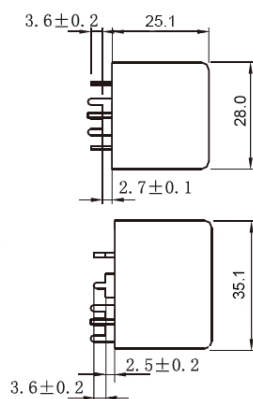
Fig. 3

Plug-in

Plug-in with metal mounting bracket



PCB Mounting



Dimensions in mm