



- General Purpose automotive or industrial relay
- Good inrush current resistance
- Ideal for DC motor control
- High continuous DC current capability
- Optimised for up to 110VDC switching
- Magnet arc blowout feature
- Industry standard terminal layout

ROHS  
Compliant ✓

## Contacts

Contact arrangement	SPST-NO (1 Form A), SPDT (1 Form C)
Contact material	AgSnO <sub>2</sub>
Max. switching voltage	DC 110VDC
Min. switching current / voltage	100mA / 12VDC
Rated load - see Fig. 1	DC1 60A @ 12VDC, 25A @ 36VDC, 20A @ 48VDC 15A @ 72VDC, 7A @ 110VDC
Max. switching current	make 120A @ 12.8VDC (3secs)
Initial Contact resistance	<100mΩ, at 0.1A / 6VDC

## Coil

Rated voltage	DC 6 ... 50V
Must release voltage	≥0.1U <sub>n</sub>
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 750Vrms, 1min
	contact to contact 500Vrms, 1min

## General Data

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

## 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 B M - 5 0 1 1 - 7 6 - 1 0 1 2 - D R

Series

Contact material

50: AgSnO<sub>2</sub>

Contact arrangement

11: SPDT (1 C/O, 1 Form C)  
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)

Nil: 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) ±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

