

DG08

miniature automotive twin power relay

DURAKOOL



- miniature - only 24.3 x 15.8 x 14mm.
- 2 relays in one package
- simplified coil connections
- Up to 60A 12VDC switching.
- Special option for motor loads.
- RoHS Compliant.

Contacts

Contact number & arrangement	2 x SPDT (1 Form C)	
Contact material	AgNi0.15; AgNi90/10; AgSnOInO	
Max. switching voltage	DC	16VDC (consult factory for 24VDC)
Min. switching current / voltage	100mA / 5VDC (AgNi0.15); 500mA / 5VDC (AgSnOInO)	
Rated load	DC1	20A/12VDC
Max. continuous current	DC1	35A (10 mins) / 25A (1hr)
Max. switching current ² (AgSnOInO)	Make	60A
	Break	20A
Initial contact resistance	100mΩ max. at 0.1A/6VDC	

Coil

Rated voltage	DC	6...24V
Must release voltage	≥0.1Un	
Operating range of supply voltage	See coil table 1 and coil table 2	
Rated power consumption	DC	0.6W (table 1) / 0.8W (table 2) for increased contact gap version

Insulation

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

General Data

Operating time (typical)	ms	10
Release time (typical)	ms	5
Electrical Life ³	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁷
Dimensions	L x W x H	24.3 x 15.8 x 14.0mm (excluding terminal pins)
Weight	13g approx.	
Ambient temperature	storage	-40 to 100°C
	operating	-30 to 85°C
Shock resistance	Functional: 10g 11ms; Destructive: 100g	
Vibration resistance	DA 1.5mm 10-55Hz	

DURAKOOL

DG08

miniature automotive twin power relay

DURAKOOL

Coil Data (600mW - standard version)

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
S006	6	60	3.6	0.6
S009	9	135	5.4	0.9
S010	10	167	6.3	1.0
S012	12	240	7.3	1.2
S024	24	960	14.4	2.4

Coil Data (800mW - increased contact gap version)*

Table 2

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
1006	6	45	3.6	0.6
1009	9	100	5.4	0.9
1010	10	123	6.3	1.0
1012	12	180	7.3	1.2
1024	24	720	14.4	2.4

* Contact gap increased to 0.45mm

Ordering codes

Type	Contact material	Contact arrangement	Cover protection and mounting	Coil code
D G 0 8			5	

Contact material
20 - AgNi (90/10)
70 - AgSnOInO
80 - AgNi 0.15

Contact arrangement
11 - SPDT (1 C/O, 1 Form C)

Cover protection category
2 - in cover, flux tight - IP40
3 - in cover, sealed - IP67

Connection mode
5 - for PCB

Options
Nil - No options
G - Increased contact gap (may be specified with std, Class F or Class H insulation)
F - UL Class F insulation for higher ambient temperatures
H - UL Class H insulation for high ambient temperatures
M - Suitable for reflow soldering

See coil tables 1 or 2

DURAKOOL

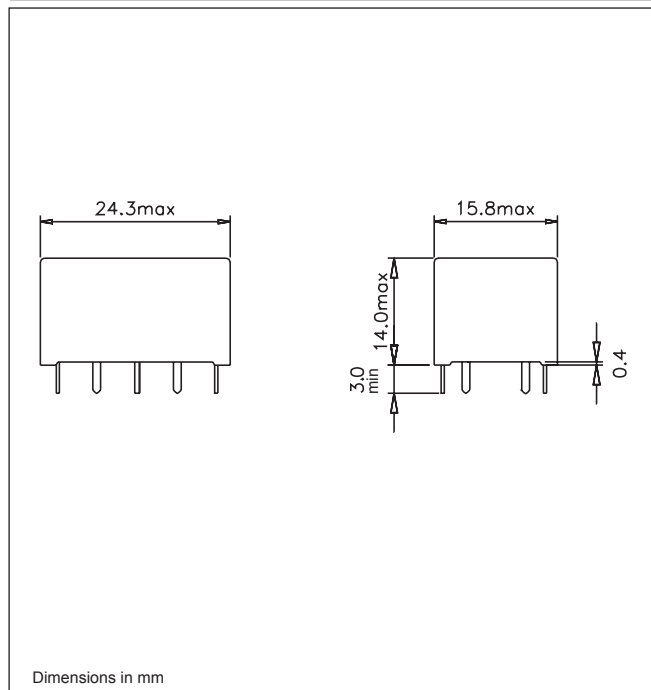
DG08

miniature automotive twin power relay

DURAKOOL

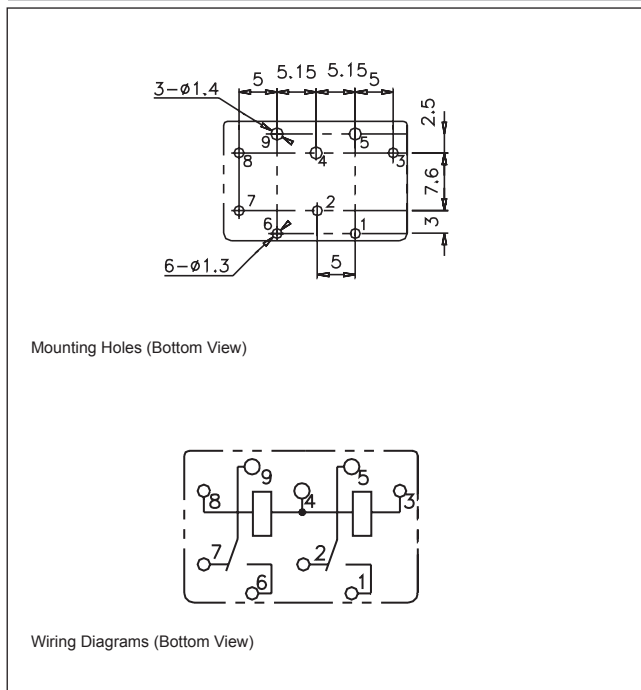
Overall Dimensions

Fig. 1



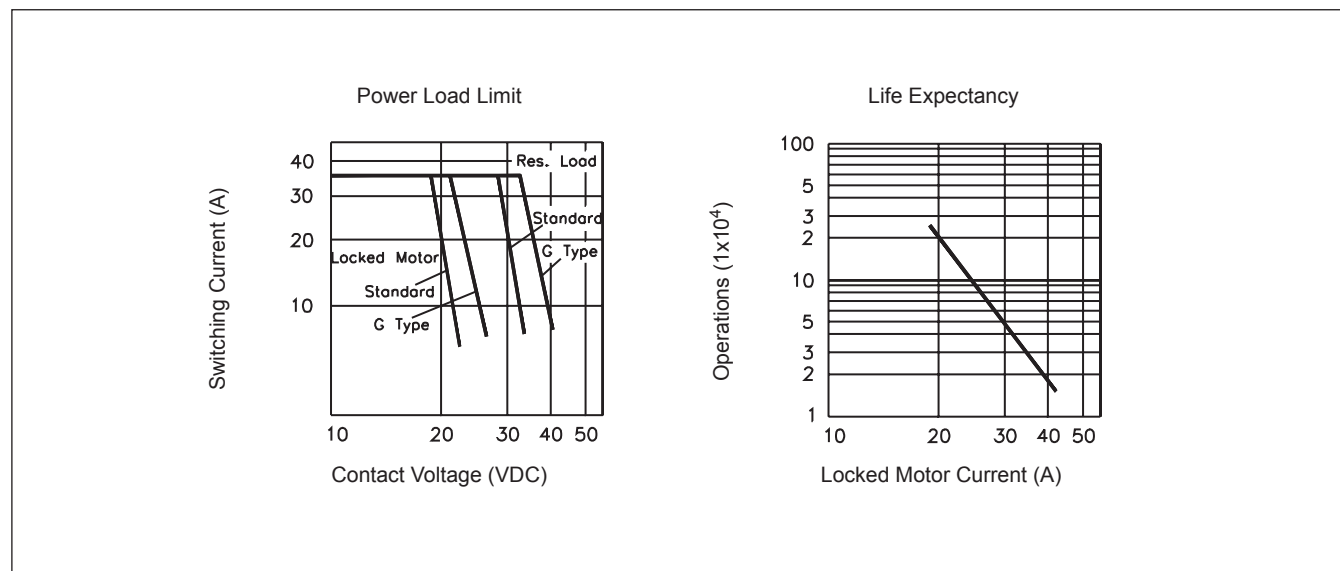
PCB Mounting Dimensions

Fig. 2



Reference Curves

Fig. 3



Notes:

- 1: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C.
- 2: Maximum make current refers to inrush current of lamp load.
- 3: Electrical life is obtained at motor load of locked rotor at 25A, 13.5VDC, with operating frequency of 6 ops/sec.
- 4: Electrical life is strongly dependent of switching frequency, On/Off ratio and environmental conditions.