

DG05

pcb power relay

DURAKOOL



- miniature pcb power relay
- Up to 10A /30VDC or 250VAC rating
- industry standard style
- 200mW Coil option
- RoHS Compliant



Contacts

Contact number & arrangement	SPST-NO (1 N/O)
Contact material	AgSnO ₂
Max. switching voltage	AC/DC 250VAC / 30VDC
Max. switching power	2500VA / 300W
Min. switching current / voltage	100mA/12VDC
Rated load	AC1 10A / 250VAC DC1 10A / 30VDC

Initial resistance ≤ 50mΩ, max. at 0.1A/6VDC

Coil

Rated voltage	DC 3...24V (3V not UL approved)
Must release voltage	DC ≥ 0.1Un
Operating range of supply voltage	See coil tables 1 and 2
Rated power consumption	DC 200mW (Sensitive Coil) / 450mW (Standard Coil)

Insulation

Insulation resistance (min.)	1000MΩ at 500VDC, 50%RH
Tracking resistance	CTI 250
Dielectric strength	coil to contact 4000Vrms 50/60Hz, 1min contact to contact 1000Vrms 50/60Hz, 1min
Surge resistance	coil to contact 10,000V / 1.2x50 μs

General Data

Operating time (typical)	mS ≤ 6ms (Sensitive Coil), ≤ 5ms (Standard Coil)
Release time (typical)	mS ≤ 3ms
Electrical Life	ops ≥ 1 x 10 ⁵ (resistive), max. 30 operations per minute
Mechanical life	ops ≥ 1 x 10 ⁷ (no load), max. 300 operations per minute
Dimensions	L x W x H 18.2 x 10.2 x 15.5mm
Weight	~7g
Ambient temperature	storage -40 to 105°C operating -40 to 85°C (Coil Class F - 155°C)
Flammability class	UL 94V-0
Shock resistance	Functional: 10g; Destructive: 100g
Vibration resistance	DA 1.5mm 10-55Hz

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Coil Data (450mW)

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Maximum allowable voltage (VDC)
1003 ¹	3	20	2.25	0.30	3.9
1005	5	55	3.75	0.50	6.5
1006	6	80	4.50	0.60	7.8
1009	9	180	6.75	0.90	11.7
1012	12	320	9.00	1.20	15.6
1024	24	1280	18.00	2.40	31.2

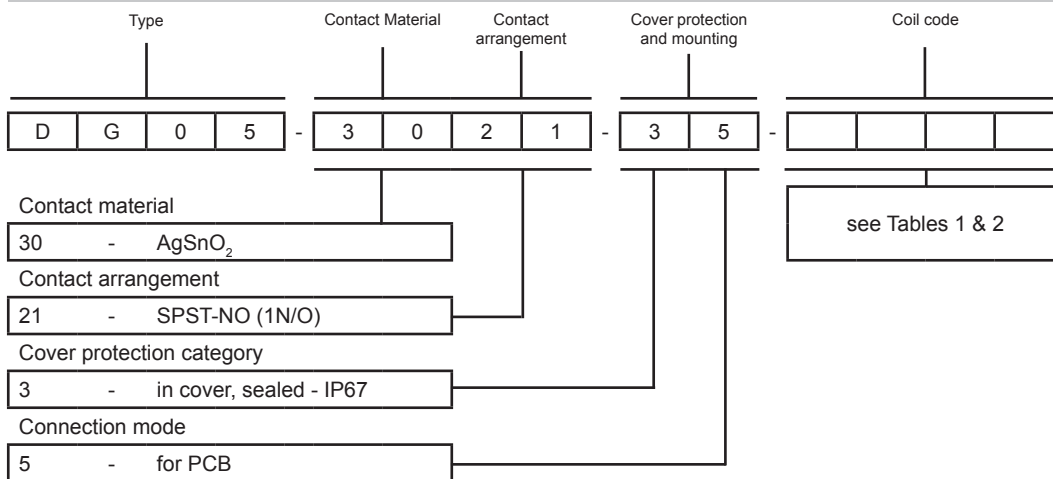
Coil Data (200mW)

Table 2

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Maximum allowable voltage (VDC)
S003 ¹	3	45	2.25	0.30	3.9
S005	5	125	3.75	0.50	6.5
S006	6	180	4.50	0.60	7.8
S009	9	400	6.75	0.90	11.7
S012	12	720	9.00	1.20	15.6
S024	24	2800	18.00	2.40	31.2

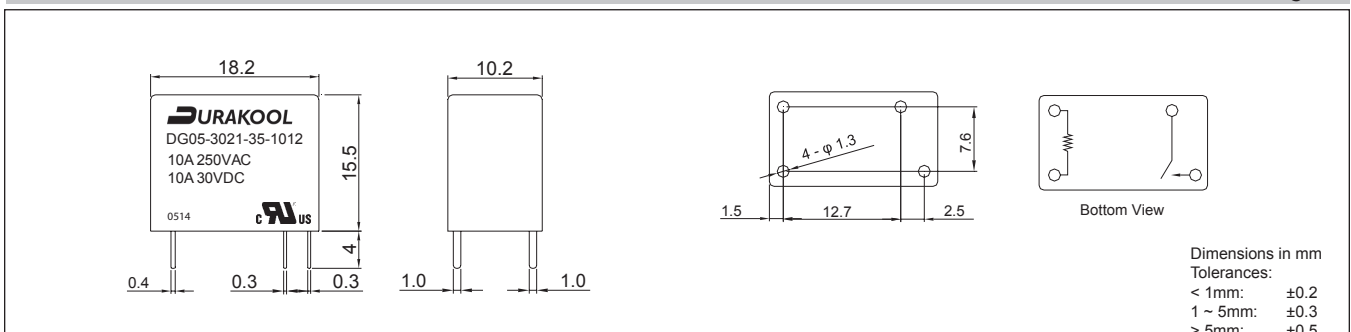
¹ 3VDC Coil not UL approved.

Ordering codes



Overall Dimensions

Fig. 1



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