

# DG84 series

micro plug-in/pcb automotive relay

# DURAKOOL



- Industry Standard micro plug-in relay
- Up to 120A 12VDC inrush capability
- PCB Mounting option
- Cost effective
- RoHS Compliant

## Contacts

		DG84A	DG84B
Contact number & arrangement		SPST-NO / SPDT	SPST-NO / SPDT
Contact material		AgSnOInO	AgSnOInO
Max. switching voltage	DC	27V	27V
Rated load (13VDC resistive)	DC1	30A (NO) / 20A (NC)	40A (NO) / 30A (NC)
Rated load (27VDC resistive)	DC1	25A (NO) / 15A (NC)	30A (NO) / 20A (NC)
Max. switching current	Make	120A (at 13VDC) (Lamp Load)	120A (at 13VDC) (Lamp Load)
	Break	30A (resistive)	40A
Initial resistance		≤50mΩ (1A/24VDC)	≤50mΩ (1A/24VDC)
<b>Coil</b>			
Rated voltage	DC	12, 24V	
Must release voltage		≥0.1Un	
Operating range of supply voltage		See coil table 1	
Rated power consumption	DC	1.4W to 1.8W (with resistor); 1.2W sensitive coil	
<b>Insulation</b>			
Insulation resistance		100MΩ at 500VDC, 50%RH	
Dielectric strength			
	coil to contact	550Vrms, 1min	
	contact to contact	500Vrms, 1min	
<b>General Data</b>			
Operating time (typical)	mS	5 (10mS max)	
Release time (typical)	mS	5 (10mS max)	
Electrical Life	ops	1 x 10 <sup>5</sup> (see Note 2)	
Mechanical life	ops	1 x 10 <sup>7</sup>	
Dimensions	L x W x H	23 x 15.4 x 24.8 mm (excluding terminals)	
Weight		Approx. 22g	
Ambient temperature	storage	-40 to 155°C	
	operating	-40 to 125°C	
Shock resistance		Functional: 196m/s <sup>2</sup> (20g); Destructive: 100g	
Vibration resistance		10Hz - 500Hz 49m/s <sup>2</sup> (5g)	

# DG84 series

micro plug-in/pcb automotive relay



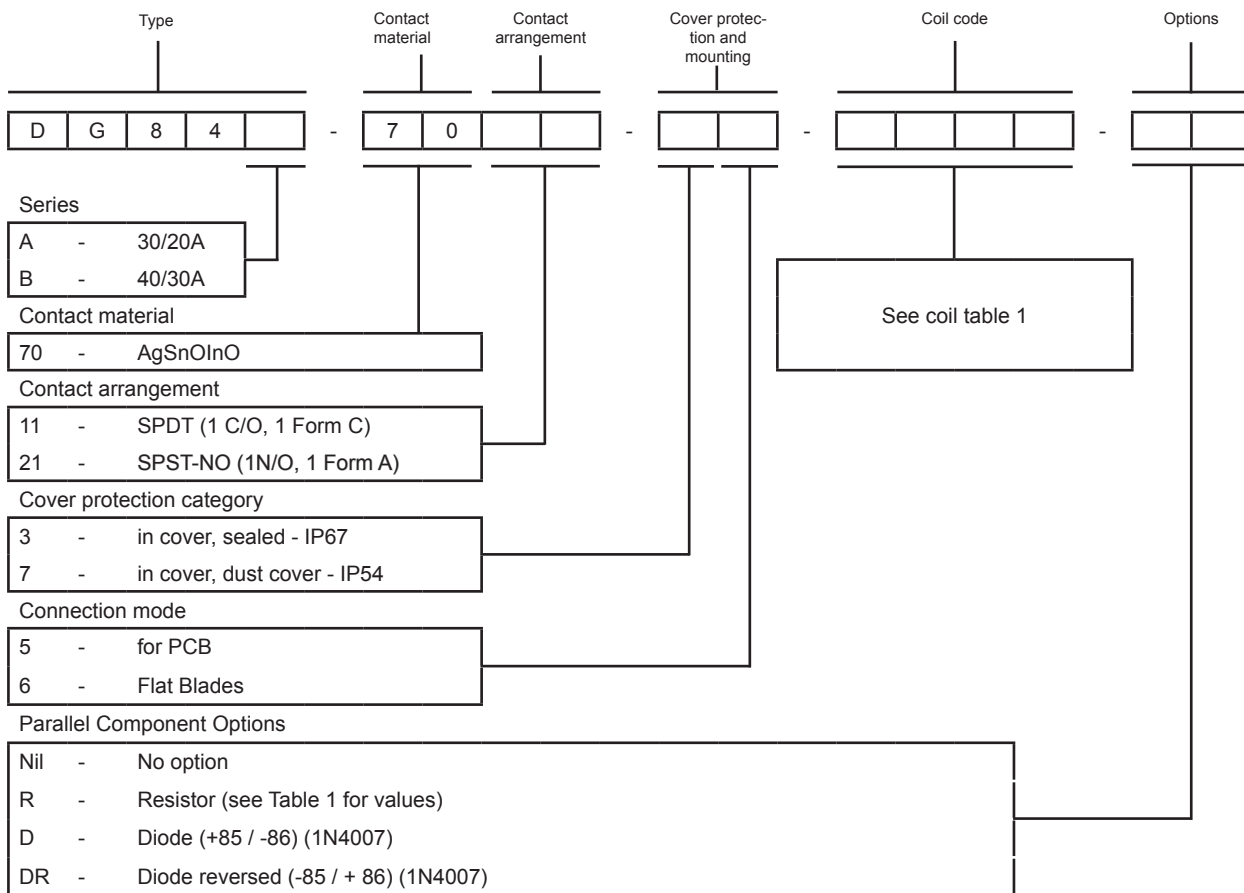
Coil Data

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance ( $\Omega$ ) $\pm 10\%$	Must Operate Voltage Max. (VDC)	Must Release voltage min. (VDC)	Parallel Resistor (optional) ( $\Omega$ )
1012	12	98	7.2	1.2	680
1024	24	385	14.4	2.4	2700
S012	12	124	7.2	1.2	680
S024	24	441	14.4	2.4	2700

\* At ambient temperature of 85°C, maximum allowable voltage should be reduced by 28%

## Ordering codes



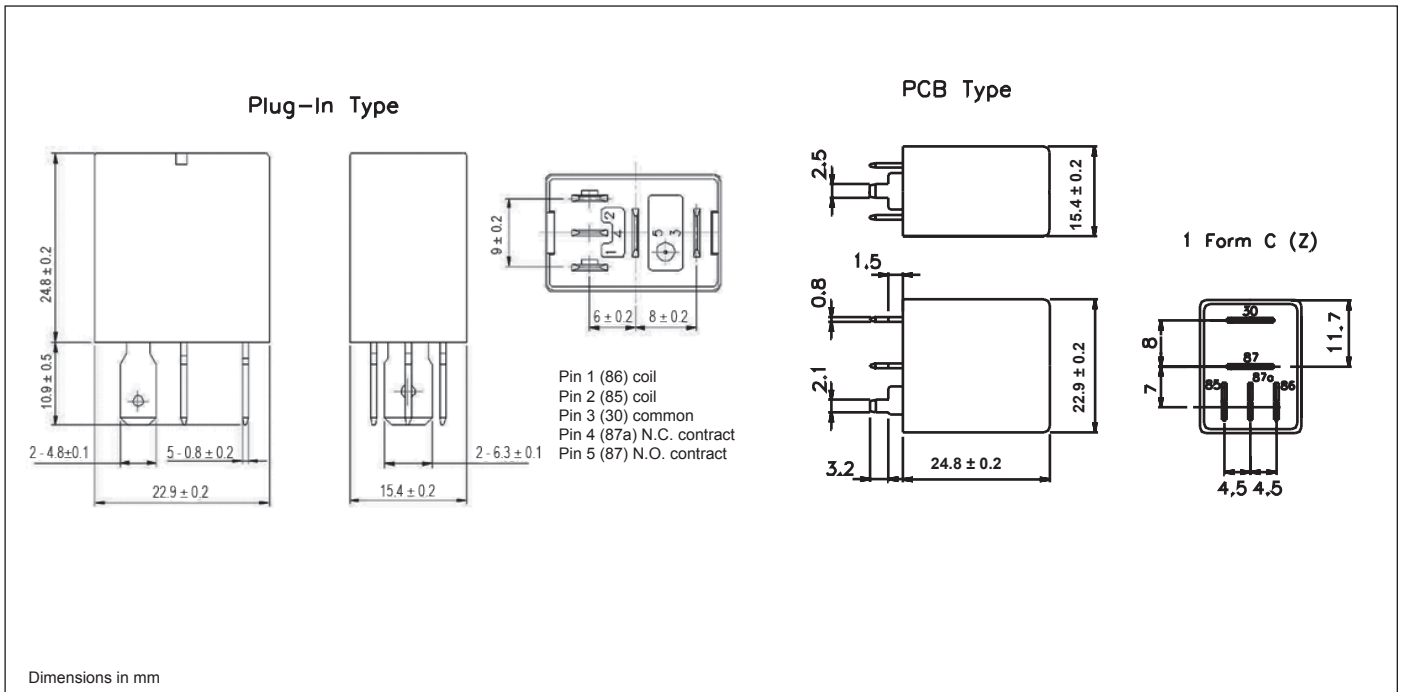
# DG84 series

micro plug-in/pcb automotive relay



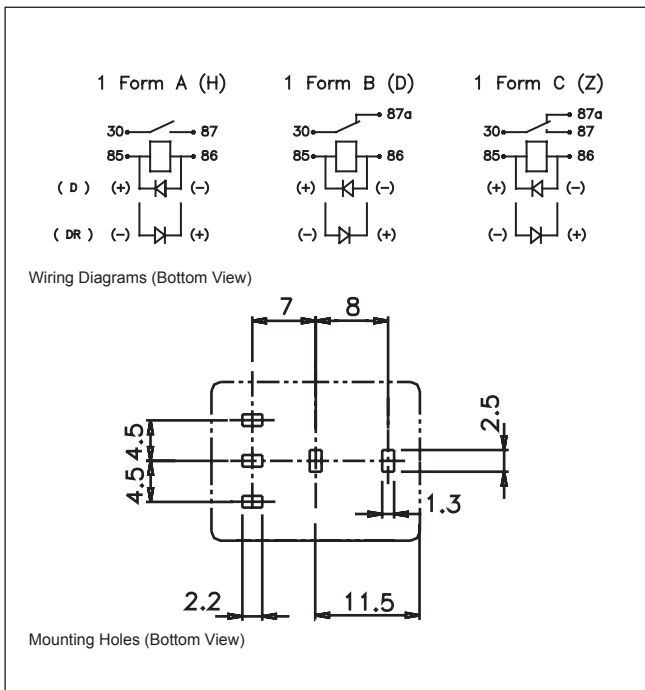
Overall Dimensions

Fig. 1



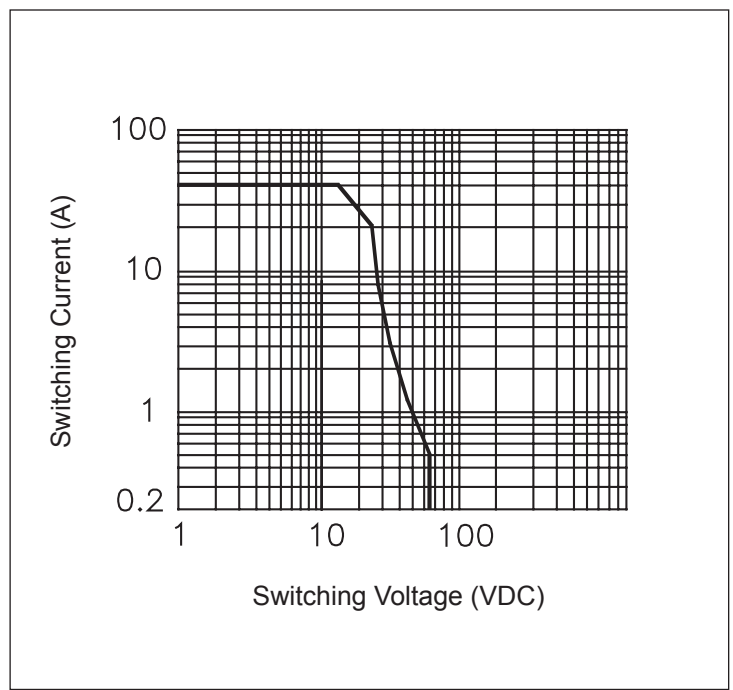
PCB Mounting Dimensions

Fig. 2



Reference Curves

Fig. 3



**Notes:**

- 1: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C.
- 2: Electrical life obtained at resistive or inductive load at 40A ((DG84B), 15VDC with suitable arc suppression circuit attached and with operating frequency of 1 op/sec.
- 3: Maximum make current refers to lamp load inrush current.

Specifications are subject to change without notice. E&OE.

American Electronic Components Inc., 1101 Lafayette St. Elkhart, IN46516  
 www.aecensors.com      Sales Department Tel: (888) 847-6552

