# **Panasonic**



#### 1a 8A, 1a1b/2a 5A small polarized power relays

## **DSP RELAYS**



**RoHS** compliant

Protective construction: Sealed type

#### **FEATURES**

- 1. Compact with high contact rating
  Even with small 10 mm .394 inch (H) x
  11 mm .433 inch (W) x 20 mm .787
  inch (L) (dimensions, high capacity
  switching is provided: 1a, 8 A 250 V
  AC; 2a and 1a1b, 5 A 250 V AC.
- 2. High switching capability
  High contact pressure, low contact
  bounce, and wiping operation improve
  resistance to weld bonding. Resistant
  against lamp load and dielectric
  loading: 1a achieves maximum
  switching capacity of 2,000 VA (8A 250
  V AC).

#### 3. High sensitivity

Using the same type of highperformance polar magnetic circuits as DS relays, by matching the spring load to the magnetic force of attraction, greater sensitivity has been achieved. The resultant pick up sensitivity of about 190 mW makes possible direct driving of transistors and chips.

4. High breakdown voltage Breakdown voltage has been raised by keeping the coil and contacts separate.

Between contact and coil	Between contacts			
3,000 Vrms for 1 min.	1,000 Vrms for 1 min.			
5,000 V surge	1,500 V surge			
breakdown voltage	breakdown voltage			

Conforms with FCC Part 68

- 5. Latching types available
- 6. Wide variation

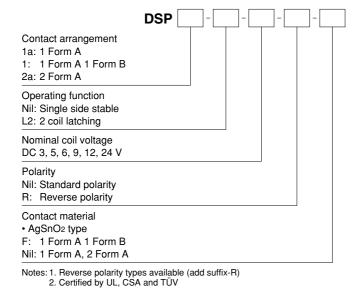
Three types of contact arrangement are offered: 1a, 2a, and 1a1b. In addition, each is available in standard and reversed polarity types.

- 7. Sealed construction allows automatic washing
- 8. Complies with safety standards Complies with Japan Electrical Appliance and Material Safety Law requirements for operating 200 V power supply circuits, and complies with UL, CSA, and TÜV safety standards.
- 9. Sockets are available

#### TYPICAL APPLICATIONS

- Office and industrial electronic devices
- 2. Terminal devices of information processing equipment, such as printer, data recorder
- 3. Office equipment (copier, facsimile)
- 4. Measuring instruments
- 5. NC machines, temperature controllers and programmable logic controllers

#### ORDERING INFORMATION



### **TYPES**

Contact arrangement	Nominal coil	Single side stable	2 coil latching			
	voltage	Part No.	Part No.			
1 Form A	3V DC	DSP1a-DC3V	DSP1a-L2-DC3V			
	5V DC	DSP1a-DC5V	DSP1a-L2-DC5V			
	6V DC	DSP1a-DC6V	DSP1a-L2-DC6V			
	9V DC	DSP1a-DC9V	DSP1a-L2-DC9V			
	12V DC	DSP1a-DC12V	DSP1a-L2-DC12V			
	24V DC	DSP1a-DC24V	DSP1a-L2-DC24V			
1 Form A 1 Form B	3V DC	DSP1-DC3V-F	DSP1-L2-DC3V-F			
	5V DC	DSP1-DC5V-F	DSP1-L2-DC5V-F			
	6V DC	DSP1-DC6V-F	DSP1-L2-DC6V-F			
	9V DC	DSP1-DC9V-F	DSP1-L2-DC9V-F			
	12V DC	DSP1-DC12V-F	DSP1-L2-DC12V-F			
	24V DC	DSP1-DC24V-F	DSP1-L2-DC24V-F			
2 Form A	3V DC	DSP2a-DC3V	DSP2a-L2-DC3V			
	5V DC	DSP2a-DC5V	DSP2a-L2-DC5V			
	6V DC	DSP2a-DC6V	DSP2a-L2-DC6V			
	9V DC	DSP2a-DC9V	DSP2a-L2-DC9V			
	12V DC	DSP2a-DC12V	DSP2a-L2-DC12V			
	24V DC	DSP2a-DC24V	DSP2a-L2-DC24V			

Standard packing: Carton: 50 pcs.; Case: 500 pcs.
Note: Reverse polarity type are manufactured by lot upon receipt of order.

#### **RATING**

#### 1. Coil data

#### 1) Single side stable

Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)	current [+10%] (at 20% 68%)		Max. applied voltage (at 20°C 68°F)
3V DC			100mA	30Ω		
5V DC		60mA	83Ω			
6V DC	80%V or less of nominal voltage	10%V or more of nominal voltage (Initial)	50mA	120Ω	300mW	130%V of nominal voltage
9V DC	(Initial)		33.3mA	270Ω	SOUTHV	
12V DC			25mA	480Ω		
24V DC			12.5mA	1,920Ω		

#### 2) 2 coil latching

Nominal coil voltage	Set voltage (at 20°C 68°F)	Reset voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)		Coil resistance [±10%] (at 20°C 68°F)		Nominal operating power		Max. applied voltage (at 20°C 68°F)
			Set coil	Reset coil	Set coil	Reset coil	Set coil	Reset coil	
3V DC	80%V or less of nominal voltage (Initial)		100mA	100mA	30Ω	30Ω	- 300mW	300mW	130%V of nominal voltage
5V DC		80%V or less of nominal voltage (Initial)	60mA	60mA	83Ω	83Ω			
6V DC			50mA	50mA	120Ω	120Ω			
9V DC			33.3mA	33.3mA	270Ω	270Ω			
12V DC			25mA	25mA	480Ω	480Ω			
24V DC			12.5mA	12.5mA	1,920Ω	1,920Ω			

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<sup>\*</sup> Sockets available.