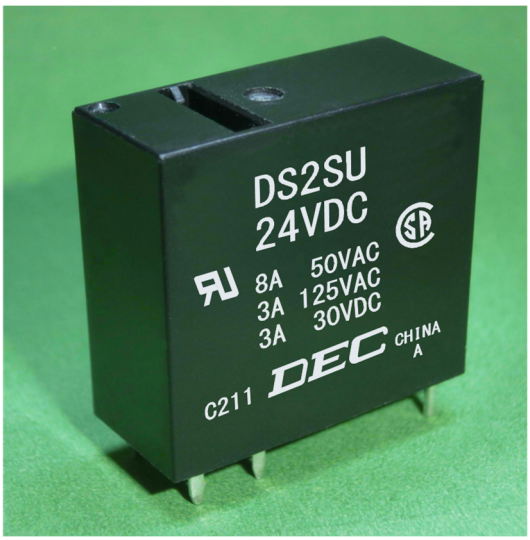
General purpose miniature power relay

RoHS compliant

DS series

Power relay series pursuing reliability and safety



DS2SU

■ Currently it is used for such purposes

- Ideal for power supply for audio
- Commercial equipment, Vending machines, Telecommunications equipment, Disaster prevention equipment, Copiers, Measuring instruments, Medical devices
- Various household appliances

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General purpose miniature power relay that can be used for a wide range of applications from control to power.

DS series

■ Features

○ General purpose relay boasting high reliability and achievement.
○ PCB type.
○ Small size, easy to use 2-poles relay.
○ Ideal for audio speaker protection etc.
○ Conforms to the various safety standards.

■ Model numbering system

DS □ □ □ – □ □

Rated coil voltage: Numeric part indication	DC (V) : 12, 24
Coil type	D: DC
Number of contact poles	2: 2 poles
Shape indication	O: PCB terminals
Contact configuration	S(M): Cross bar single contacts

■ Safety standards

	Contact rating
UL	8A 50V AC 3A 125V AC 3A 30V DC
CSA	8A 50V AC 3A 125V AC 3A 30V DC
Electrical Appliances and Materials Safety Act	Conformable

■ Coil ratings

Item / AC/DC / Voltage		Rated current (mA)	Coil resistance (Ω)	Operate voltage (V)	Release voltage (V)	Maximum voltage (V)	Power consumption (W)
				Ratio to rated voltage			
DC	12	44	275	80% max.	5% min.	110%	0.53
	24	22	1100				

● Notes: 1. Rated current and coil resistance are values at coil temperature of 20℃, tolerance is ±10%.
2. Operate voltage and release voltage are values at coil temperature of 20℃.
3. Maximum voltage is the maximum value of the allowable voltage fluctuation range of the relay coil operating power supply with the ambient temperature at 20℃.

General purpose miniature power relay that can be used for a wide range of applications from control to power.

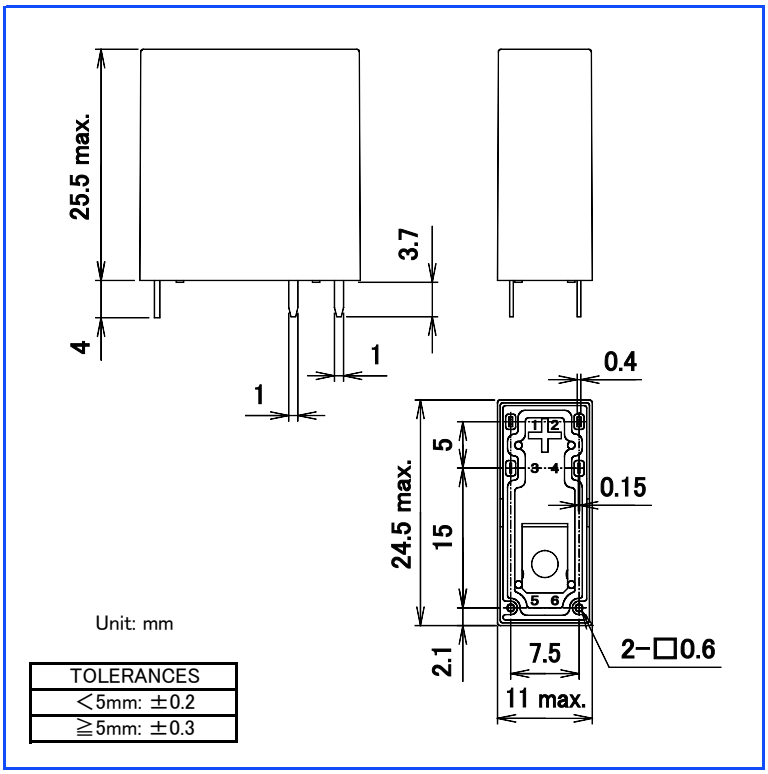
DS series

■ Ratings・Performance

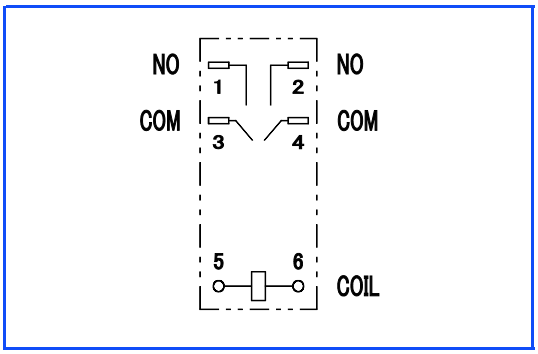
Specifications	Item		Performance
Contact specification	Contact configuration		2a, Crossbar contacts
	Contact resistance		30mΩ max. (at DC6V 1A)
	Contact material		Gold clad silver contact
Ratings	Rated load (resistive load)		AC50V 8A AC125V 3A DC30V 3A
	Max. switching capacity (resistive load)		400VA
	Max. switching voltage		AC125V
	Max. switching current		8A
Electrical capability	Insulation resistance		100MΩ min. (at DC500V)
	Dielectric strength	Between coil and contacts	AC2000V 1 min
		Between open contacts	AC1000V 1 min
		Between opposite polarity contacts	AC1000V 1 min
	Impulse withstand voltage (between coil and contacts)		8000V (1.2×50μs)
	Operate time (at rated voltage on, at 20℃)		15ms max. (excluding contact bounce time)
	Release time (at rated voltage off, at 20℃)		5ms max. (excluding contact bounce time)
Mechanical capability	Vibration resistance	Malfunction	10 to 55 to 10Hz (double amplitude 1.5mm)
		Destruction	10 to 55 to 10Hz (double amplitude 1.5mm)
	Shock resistance	Malfunction	100m/s^2
		Destruction	1000m/s^2
Life	Mechanical endurance (at 180 times/min)		500 000 times min.
	Electrical endurance (at 20 times/min)		10 000 times min. (at rated load)
Conditions for operation	Ambient temperature		−15℃ to +60℃ (no freezing and condensing at low temperature)
	Ambient humidity		5% to 85%RH
Mass			approx. 10g

● Notes: The above is the initial value.

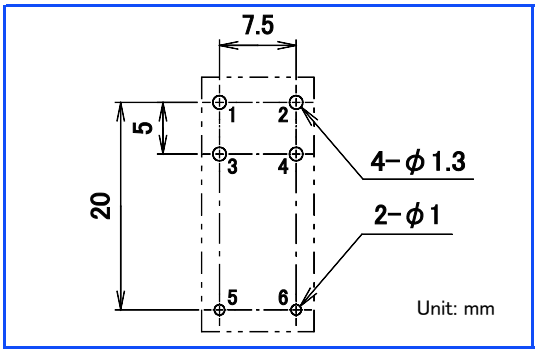
■ Dimensions



■ Schematics



■ PCB mounting holes (tolerances±0.1)



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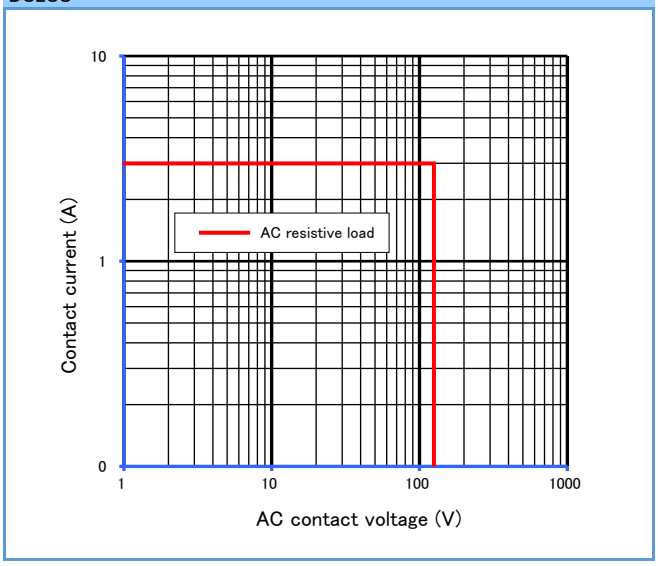
DS series

Reference data

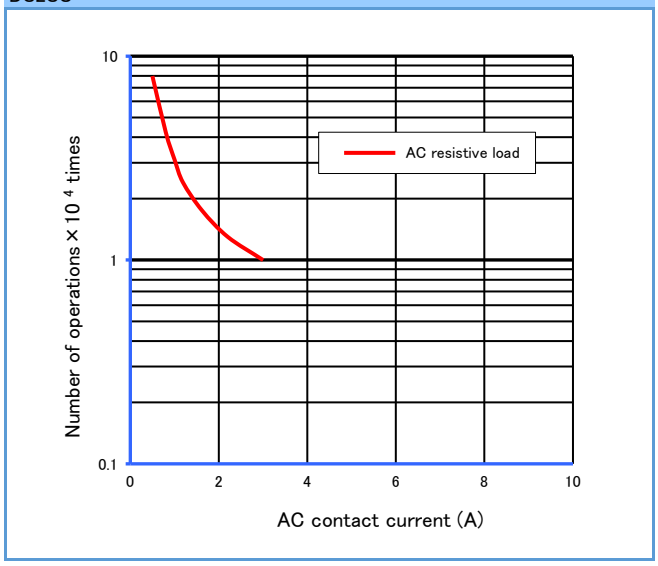
■ Maximum switching capacity

DS2SU



■ Durability curve

DS2SU



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