

FSS5 SOLID STATE RELAY



Ultra Slim Type

FEATURES

4A-10A Switching Load
 Photo Isolation
 600V Blocking Voltage
 2000V Isolation
 Zero Voltage Turn-On
 Built-In R_c Snubber
 PCB Mounting
 Sealed Type



SPECIFICATIONS

COIL RATING

INPUT RATING (AT +20°C)

RATED VOLTAGE (V DC)	VOLTAGE RANGE (V DC)	IMPEDANCE (Ω +/- 10%)	CURRENT (mA)	VOLTAGE ON (V)	CURRENT OFF (V)
5	4 - 6	470	15	3.5	1
12	9.6 - 14.4	1500	15	8.4	1
24	19.2 - 28.8	3000	15	16.8	1

OUTPUT RATING

VOLTAGE RANGE	50-250VAC				VOLTAGE DROP	1.5VAC
MAX. CURRENT RATING	4A	6A	8A	10A	MIN. LOAD CURRENT	100mA
SURGE CURRENT (NON REPETITIVE)	60A	90A	120A	150A	LEAKAGE CURRENT	3mA
ZERO VOLTAGE SWITCHING	YES				TIME TURN-ON	$\frac{1}{2}$ of Cycle + 1ms
Dv / Dt	100 v / μ s				TIME TURN-OFF	$\frac{1}{2}$ of Cycle + 1ms
FREQUENCY RANGE	47 - 70 Hz					

GENERAL CHARACTERISTICS

DIELECTRIC STRENGTH	2000 Vrms (1 Minute)
INSULATION RESISTANCE	100MΩ Min. (at 500VDC)
OPERATING TEMPERATURE RANGE	-30°C to +80°C
TERMINATION	P.C.B. Terminal
WEIGHT	12g Approx.

[Specifications are subject to change without notices.]

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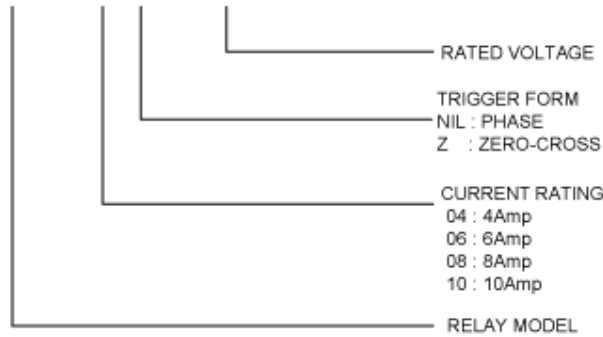
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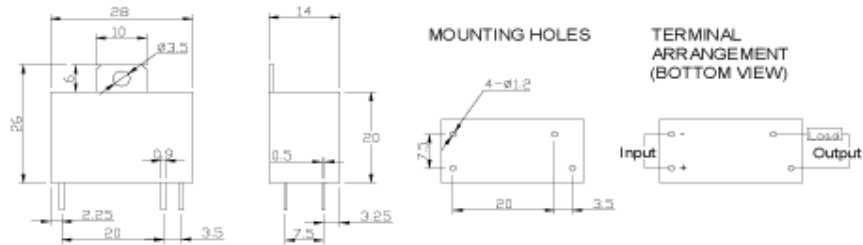


ORDERING INFORMATION

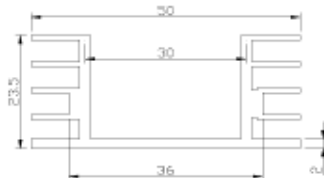
FSS5 - 04 Z DC12V



DIMENSIONS (UNIT:mm)



SRX-YC HEAT-SINK SECTION DIMENSIONS



Installation

Close Mounting

When mounting Solid-state relays (SSRs) side by side, provide a space equivalent to the width of a single SSR between two adjacent SSRs. Other, reduce the current flow to 1/2 to 1/3 of the rated current.

Heat Sink Mounting

To mount an SSR in a heat sink, apply a heat conductive grease to the metal back surface of the SSR. Press the SSR firmly onto the heat sink to ensure a good seal. Screw the SSR down to the heat sink.

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PRECAUTIONS LOAD CONNECTION

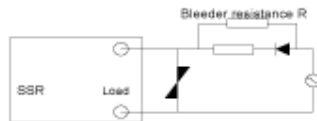
Before connecting a load that generates a high surge current, such as a lamp load, to the SSR make sure that the SSR can withstand the surge current of the load.

The product data sheet shows that the non-repetitive peak value of the surge current that flows through the SSR. Normally, use 1/2 the non-repetitive peak surge current as the standard value. If a surge current exceeding that value is expected connect a quick-blowing fuse to produce the SSR.

For an AC load, use a power supply rated at 50 or 60 Hz. The maximum operating frequency is 10Hz.

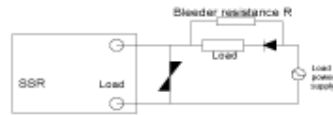
HALF-WAVE RECTIFIER LOADS

If the SSR is not provided with a zero cross function, a half-wave rectifier load can be switched with no problem. If the SSR is equipped with a zero cross function, allow about 20% of the load current to flow through the SSR.



Note : Connect bleeder resistor R

LOW-CAPACITY LOADS



Note : Connect bleeder resistor R

CAPACITIVE LOADS

The supply voltage plus the charge voltage of the capacitor applied to both ends of the SSR when it is OFF. Therefore, use an SSR model with an input voltage rating twice the size of the supply voltage.

Limit the charge current of the capacitor to less than half the peak surge current value allowed for the SSR.

NOTE

Soldering must be completed within 10 seconds at 260°C maximum.

To use the SSR output for phase control, select a model that doesn't incorporate a zero-cross function.

The load terminals are incorporate connected to a snubber circuit that absorbs noise. However, if wiring from these terminals is laid with or placed in the same duct as high voltage or power lines, noise may be induced, causing the SSR to operate irregularly or malfunction.

The input circuitry does not incorporate a circuit protecting the SSR against damage from reverse polarity connection. Make sure that the polarity is correct when connecting the input lines.

When using the FSS5 for an AC load with a peak voltage of more than 450V, connect the load terminals of the relay to a inrush absorber.

When testing dielectric strength, apply voltage between input and output. (Input and output terminals shall be shorted respectively.)