

## DC Solid State Relay



# S1D

SERIES



### Features

SSR for DC load

Max. load current at 5A, 10A, 15A

Dielectric strength between input and output at 2,500V/1 min.

MOS FET type

Optional safety cover available ( P88 )

Optional heat-sink available ( P88 )

### Type Information

**S 1 D - 0 5 1 5 W D**

Rated Load Voltage

05 : DC3 ~ 50V

10 : DC3 ~ 120V

20 : DC3 ~ 200V

Max. load current

15 : 15A

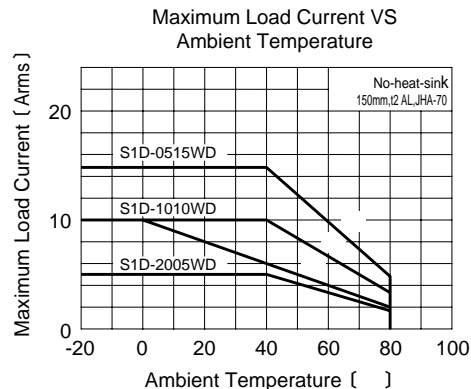
10 : 10A

05 : 5A

Input voltage range

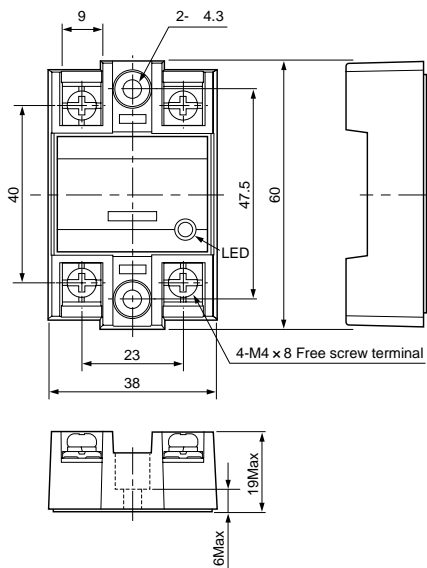
WD : DC4 ~ 28V

### Characteristics



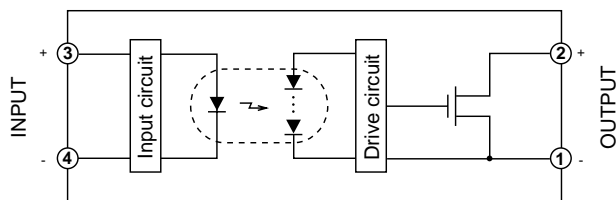
Description in the catalogue is subject to change without notice. Please read the specifications thoroughly before using. Please contact JEL SYSTEM for further information.

Dimensions (mm)



Torque range  
 Output terminal 1.5 N · m( MAX )  
 Input terminal 1.5 N · m( MAX )  
 Outer case 1.5 N · m( MAX )

Equivalent Circuit



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## Ratings

(Ta = 25 )

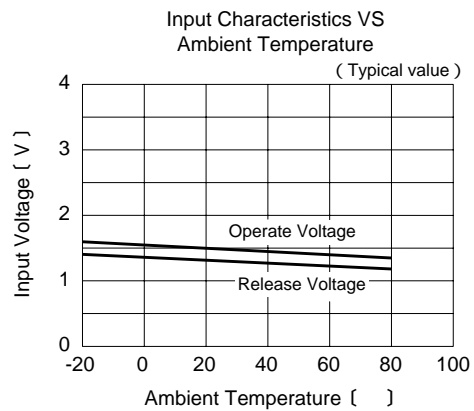
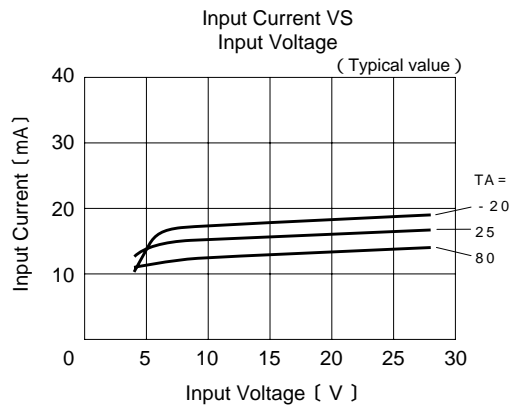
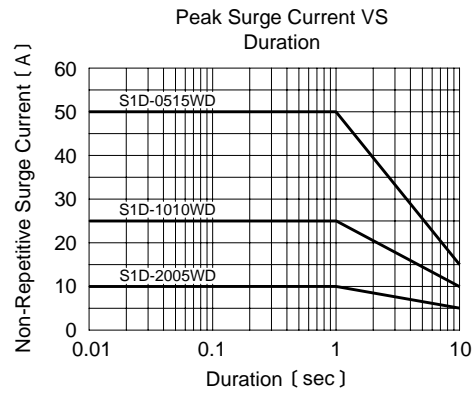
	Item	Symbols	S1D-0515WD	S1D-1010WD	S1D-2005WD	Units
Output	Maximum Load Voltage	V <sub>OMAX</sub>	60	150	200	V <sub>DC</sub>
	Load Voltage Range	Pure DC	3 ~ 50	3 ~ 120	3 ~ 200	V <sub>DC</sub>
		Bridge Rectification	V <sub>O</sub>	35	100	140
	Maximum Load Current	I <sub>OMAX</sub>	15	10	5	A <sub>DC</sub> /A <sub>rms</sub>
	Surge Current Ratings	I <sub>SURGE</sub>	50 ( 1sec )	25 ( 1sec )	10 ( 1sec )	A
Input	Maximum Input Voltage	V <sub>IMAX</sub>	28			V <sub>DC</sub>
	Input Impedance	R <sub>IN</sub>	0.25 ~ 2 ( V <sub>I</sub> = 4 ~ 28V )			k
General	Dielectric Strength	V <sub>ISO</sub>	2,500 / 1min. ( Between input-output-case )			V <sub>ACrms</sub>
	Isolation Resistance	R <sub>ISO</sub>	10 <sup>8</sup> and above DC500V ( Between input-output-case )( Rh40 ~ 60 % )			
	Operating Temperature Range	T <sub>OPR</sub>	- 20 ~ + 80			
	Storage Temperature Range	T <sub>STG</sub>	- 30 ~ + 100			

## Electrical Characteristics

(Ta = 25 )

	Item	Symbols	S1D-0515WD	S1D-1010WD	S1D-2005WD	Units
Output	Off State Leakage Current	I <sub>LEK</sub>	0.1 and below ( V <sub>O</sub> = 50V )	0.1 and below ( V <sub>O</sub> = 120V )	0.1 and below ( V <sub>O</sub> = 200V )	mA <sub>DC</sub>
	On State Voltage Drop	V <sub>SAT</sub>	0.5 and below	1.5 and below	1.5 and below	V <sub>DC</sub>
	Minimum Load Current	I <sub>OMIN</sub>	0.1			mA
Input	Input Voltage Range	V <sub>I</sub>	4 ~ 28			V <sub>DC</sub>
	Operate Voltage	V <sub>P</sub>	4 and below			V <sub>DC</sub>
	Release Voltage	V <sub>D</sub>	1 and above			V <sub>DC</sub>
General	Operate Time	T <sub>ON</sub>	5ms and below ( Resistance load )			
	Release Time	T <sub>OFF</sub>	5ms and below ( Resistance load )			
	Capacitance	C <sub>IO</sub>	150 and below			PF

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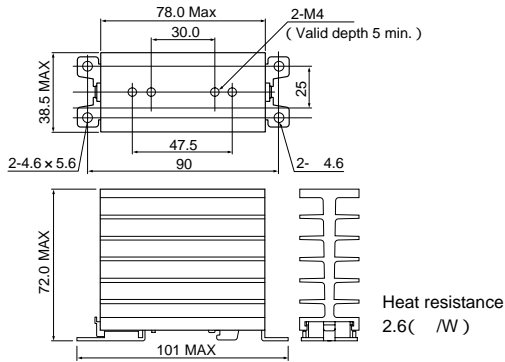
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Option

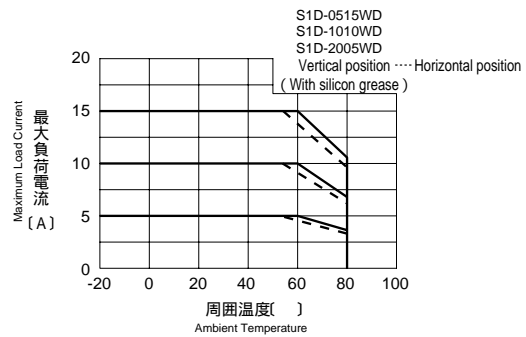
Heat-sink

Model	JHC-38-1
SUITABLE SSR	S1D Series

Dimensions

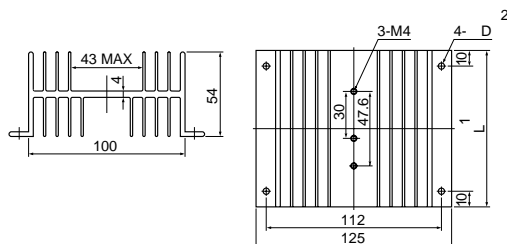


Maximum Load Current VS Ambient Temperature



Model	JHA-
SUITABLE SSR	S1D Series

Dimensions

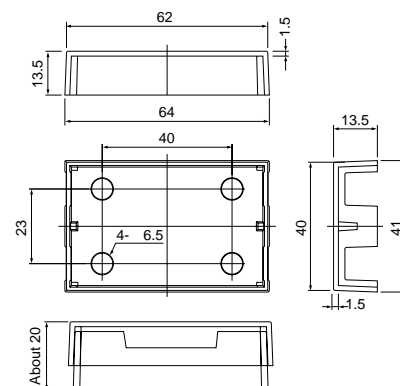


Model	Heat Resistance ( /W)	1 L( mm ) Dimensions	2 D( mm ) Dimensions
JHA-70	1.52	70	4
JHA-100	1.14	100	4
JHA-150	1.00	150	4.5
JHA-200	0.85	200	4

Safety cover

Model	CV-S101
SUITABLE SSR	S1D Series

Dimensions



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