

AC Solid State Relay



S3

SERIES



Features

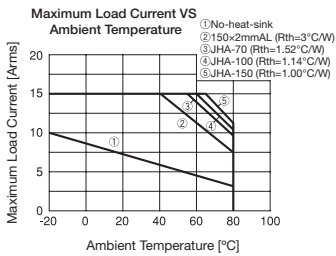
- All type have common dimensions
- LED installed
- Dielectric strength between input and output at 3,000V/1 min.
- Built-in varistor (surge absorb element)
- UL, C-UL, VDE standard approved
- Terminal safety cover installed
- Optional heat-sink available (P96)

Type Information

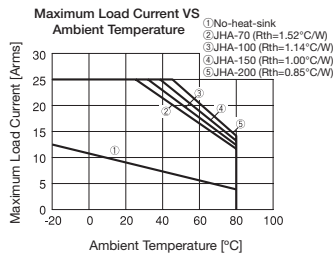
S	3	C	-	2	1	5	W	D	V
Zero-cross-circuit		Standard load voltage		Max. load current			Input voltage range		
C : Built-in		2 : 100V, 200V 4 : 400V		15 : 15A 25 : 25A 35 : 35A 45 : 45A			WDV : DC3.5 ~ 30V ADV : 85 ~ 264V		

Characteristics

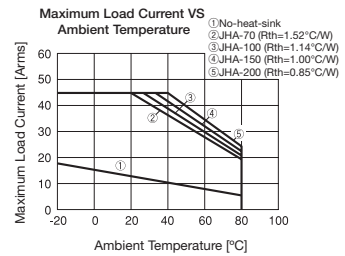
S3C-215WDV



S3C-225WDV



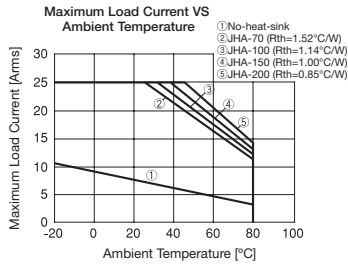
S3C-245WDV



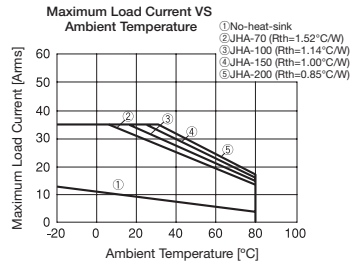
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Characteristics

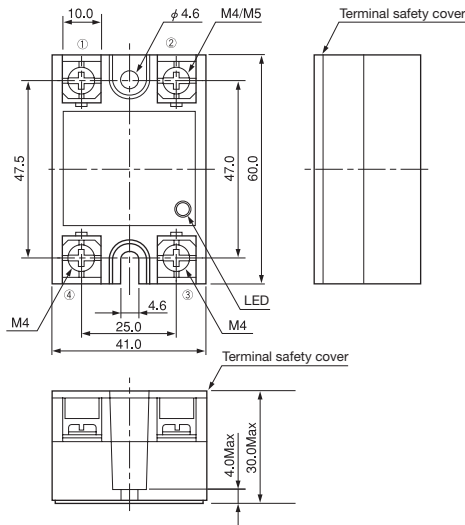
S3C-425WDV



S3C-435WDV



Dimensions (mm)



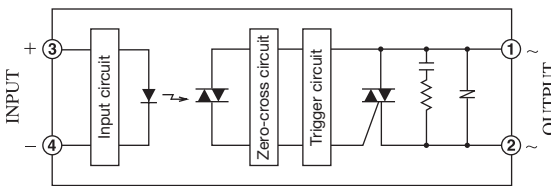
※ Torque range

- M4 terminal 1.5 N·m (MAX)
- M5 terminal 2.0 N·m (MAX)
- Outer case 1.5 N·m (MAX)

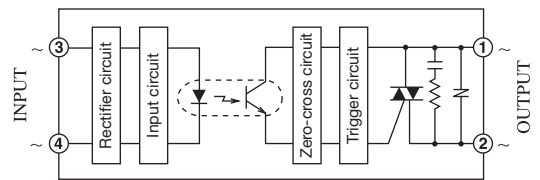
Terminal number	Terminal size	
	S3C-215 S3C-225 S3C-425 S3C-435	S3C-245
① (Output)	M4	M5
② (Output)		M4
③ (Input+)	M4	M4
④ (Input-)		

Equivalent Circuit

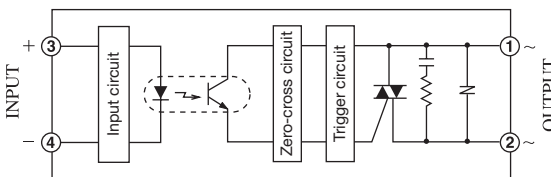
S3C-2□□WDV



S3C-2□□ADV



S3C-4□□WDV



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■ Ratings

(Ta = 25 °C)

	Item	Symbols	S3C-215WDV	S3C-225WDV	S3C-245WDV	S3C-215ADV	S3C-225ADV	S3C-245ADV	Units
Output	Rated Load Voltage	—	120, 240						V _{ACrms}
	Maximum Load Current	I _{OMAX}	15	25	45	15	25	45	A _{ACrms}
	Peak Repetitive Off State Voltage	V _{DRM}	387 (varistor voltage 430V)						V
	Peak 1 Cycle Surge Current	I _{SURGE}	150(50Hz)	225(50Hz)	440(50Hz)	150(50Hz)	225(50Hz)	440(50Hz)	A
	Frequency	f	50, 60						Hz
Input	Maximum Input Voltage	V _{IMAX}	30			264 (V _{ACrms})			V _{DC}
	Maximum Input Current	I _{IMAX}	10			5 (mA _{AC})			mA _{DC}
General	Dielectric Strength	V _{ISO}	3,000/1 min. (Between input-output-case)						V _{ACrms}
	Isolation Resistance	R _{ISO}	10 ⁸ and above DC500V (Between input-output-case)						Ω
	Operating Temperature Range	T _{OPR}	- 20 ~ + 80						°C
	Storage Temperature Range	T _{STG}	- 30 ~ + 100						°C

■ Electrical Characteristics

(Ta = 25 °C)

	Item	Symbols	S3C-215WDV	S3C-225WDV	S3C-245WDV	S3C-215ADV	S3C-225ADV	S3C-245ADV	Units
Output	Load Voltage Range	V _O	35 ~ 264						V _{ACrms}
	Off State Leakage Current	I _{LEK}	12 and below (V _O = 200V)						mA _{ACrms}
	On State Voltage Drop	V _{SAT}	1.5 and below						V _{ACrms}
	Minimum Load Current	I _{OMIN}	100						mA
Input	Input Voltage Range	V _I	3 ~ 30 (T _{OPR} = 0 ~ + 80 °C)			85 ~ 264 (V _{ACrms})			V _{DC}
			3.5 ~ 30 (T _{OPR} = - 20 ~ 0 °C)						
	Operate Voltage	V _P	3 and below (T _{OPR} = 0 ~ + 80 °C)			85 and below (V _{ACrms})			V _{DC}
			3.5 and below (T _{OPR} = - 20 ~ 0 °C)						
	Release Voltage	V _D	1 and above			30 and above (V _{ACrms})			DC
General	Operate Time	T _{ON}	1/2 Cycle + 1 ms and below			1 1/2 Cycle + 1 ms and below			/
	Release Time	T _{OFF}	1/2 Cycle + 1 ms and below			1 1/2 Cycle + 1 ms and below			/
	Capacitance	C _{ID}	15 and below						PF
	Zero Cross Turn On		Built In						/
	Approved Standards		UL, C-UL, VDE			—			/

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■ Ratings

(Ta = 25 °C)

	Item	Symbols	S3C-425WDV	S3C-435WDV	Units
Output	Rated Load Voltage	—	440		V _{ACrms}
	Maximum Load Current	I _{OMAX}	25	35	A _{ACrms}
	Peak Non Repetitive Off State Voltage	V _{DSM}	819(varistor voltage 910V)		V
	Peac 1 Cycle Surge Current	I _{SURGE}	230(50Hz)	350(50Hz)	A
	Frequency	f	50、60		Hz
Input	Maximum Input Voltage	V _{IMAX}	30		V _{DC}
	Maximum Input Current	I _{IMAX}	25		mA _{DC}
General	Dielectric Strength	V _{ISO}	3,000/1 min.(Between input and output)		V _{ACrms}
			2,500/1 min.(Between input and case or output and case)		
	Isolation Resistance	R _{ISO}	10 ⁸ and above DC500V(Between input-output-case)		Ω
	Operating Temperature Range	T _{OPR}	- 20 ~ + 80		°C
	Storage Temperature Range	T _{STG}	- 30 ~ + 100		°C

■ Electrical Characteristics

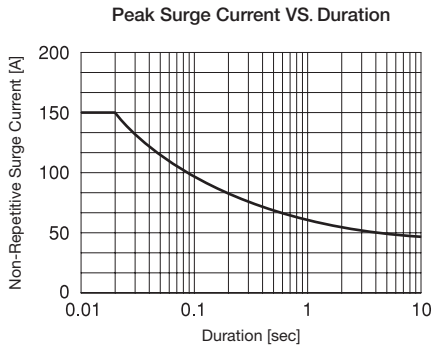
(Ta = 25 °C)

	Item	Symbols	S3C-425WDV	S3C-435WDV	Units
Output	Load Voltage Range	V _O	60 ~ 528		V _{ACrms}
	Off State Leakage Current	I _{LEK}	12 and below(V _O = 400V)		mA _{ACrms}
	On State Voltage Drop	V _{SAT}	15 and below		V _{ACrms}
	Minimum Load Current	I _{OMIN}	100		mA
Input	Input Voltage Range	V _I	3 ~ 30		V _{DC}
	Operate Voltage	V _P	3 and below		V _{DC}
	Release Voltage	V _D	1 and above		V _{DC}
General	Operate Time	T _{ON}	1/2 Cycle + 1 ms and below		/
	Release Time	T _{OFF}	1/2 Cycle + 1 ms and below		/
	Capacitance	C _{IO}	15 and below		PF
	Zero Cross Turn On		Built In		/
	Approved Standards		—		/

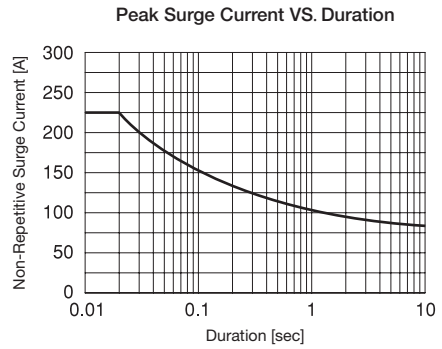
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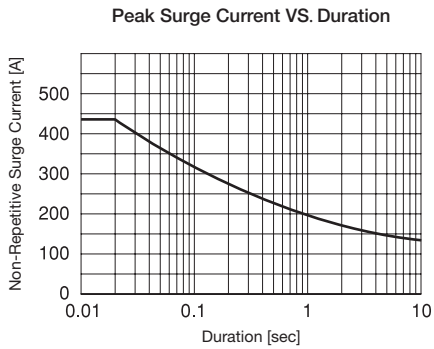
S3C-215



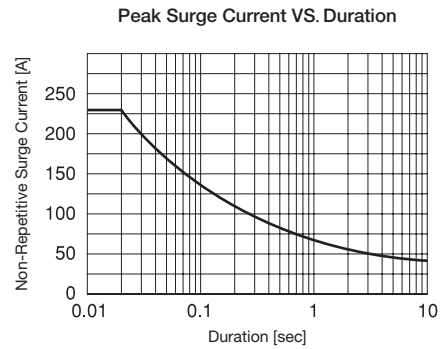
S3C-225



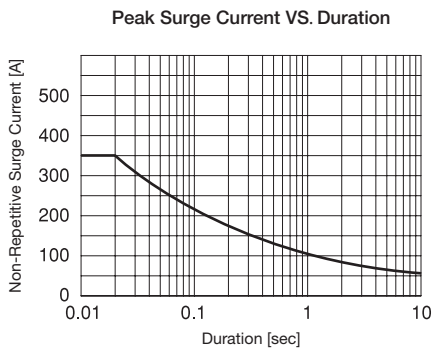
S3C-245



S3C-425WDV

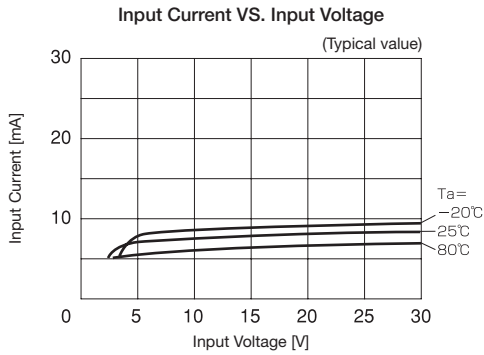


S3C-435WDV

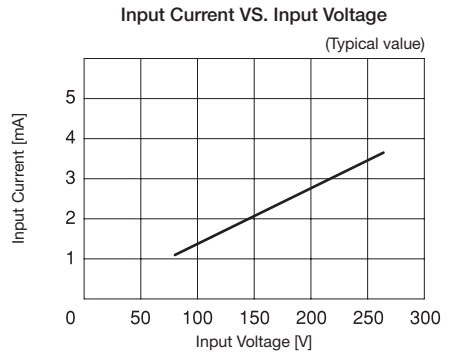


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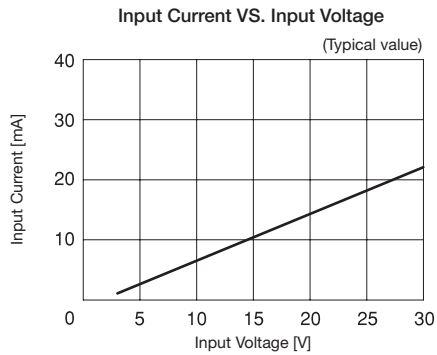
S3C-2□□WDV



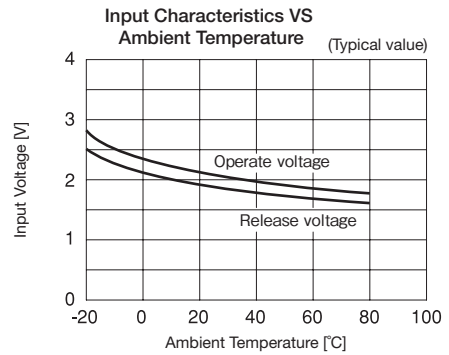
S3C-2□□ADV



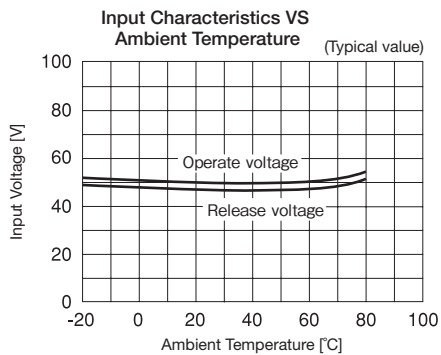
S3C-4□□WDV



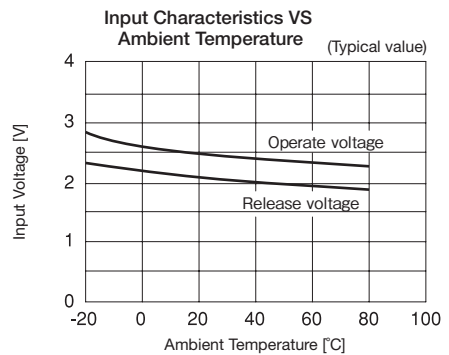
S3C-2□□WDV



S3C-2□□ADV



S3C-4□□WDV



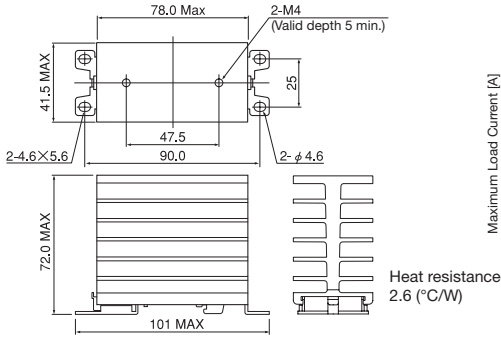
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Option

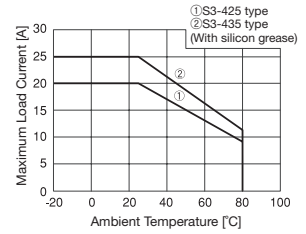
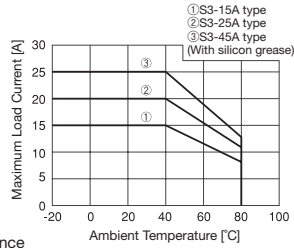
Heat-sink

Model	JHC-41-1
SUITABLE SSR	S3C Series

● Dimensions

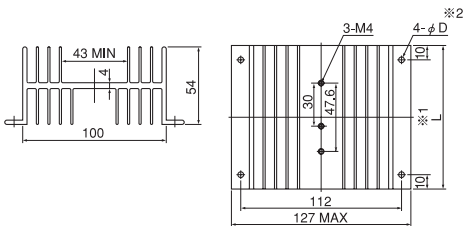


● Maximum Load Current VS Ambient Temperature



Model	JHA-□□□
SUITABLE SSR	S3C Series

● Dimensions



Model	Heat Resistance (°C/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

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