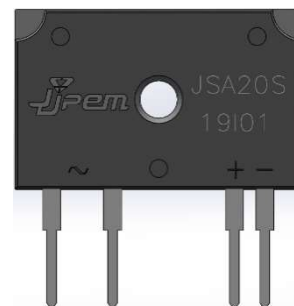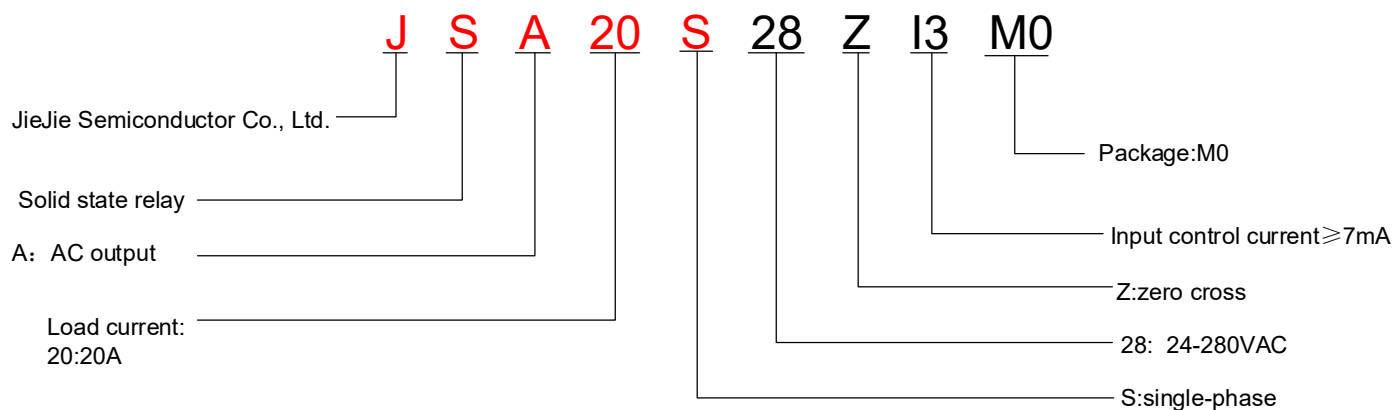# JSA20S28ZI3M0

Description

- 20A @24-280VAC
- TRIAC output for economical type loads
- Zero voltage turn-on outputs
- DC control
- High reliability plastic process

Typical Application

Electromagnetic valve, light controlling of stage, electric motor revolution and connter revolution ,heater, medical care equipment, elevator, etc.

Product Information

J S A 20 S 28 Z I3 M0

JieJie Semiconductor Co., Ltd. ── J

Solid state relay ── S

A： AC output ── A

Load current: 20:20A ── 20

Package:M0 ── M0

Input control current≥7mA ── I3

Z:zero cross ── Z

28: 24-280VAC ── 28

S:single-phase ── S

🔴 Required for valid product information

⬭ For options only and not required for valid product Information.Not all part number combinations are available.

Products Parameters （Packaged into modules, unless otherwise specified, T$_{CASE}$=25℃）

| Output specification	
Description	**JSA20S28ZI3M0**
Operating voltage(47-440Hz) (V$_{RSM}$)	24-280VAC
Transient overvoltage(V$_{PK}$)	800
Maximum off-state leakage current @ rated voltage (mA)	1
Minimum off-state dv/dt@ maximum rated voltage(V/μs)	500
Maximum load current (A)	20
Minimum load current (mA)	150
Maximum 1 cycle surge current (50/60Hz) (A)	200
Maximum on-state voltage drop@ rated current (V$_{RMS}$)	1.5
Maximum 1/2 cycle I²t for fusing (50/60Hz)(A² sec)	200
Minimum power factor (at maximum load)	0.5

Input specification	
Description	**JSA20S28ZI3M0**
Control current range(mA)	7-50
Minimum turn-on voltage (@I$_{FT}$=5mA) (V)	1.5
Must turn-off voltage(V)	1.0
Typical input current (mA)	15
Maximum input current (mA)	50
Maximum turn-on time (ms)	1/2cycle
Maximum turn-off time (ms)	1/2cycle

| General specification	
Description	**Value**
Dielectric strength, input/output/base (50/60Hz)(V)	2000VDC(1min)
Minimum insulation resistance (@ 500VDC) (MΩ)	1000
Maximum capacitance, input/output(pF)	10
Ambient operating temperature range(℃)	-40℃~80℃
Ambient storage temperature range(℃)	-40℃~125℃
Weight (typical)(g)	Approximately3.8g
Humidity per IEC60068-2-78	93% non-condensing

Circuit Diagram
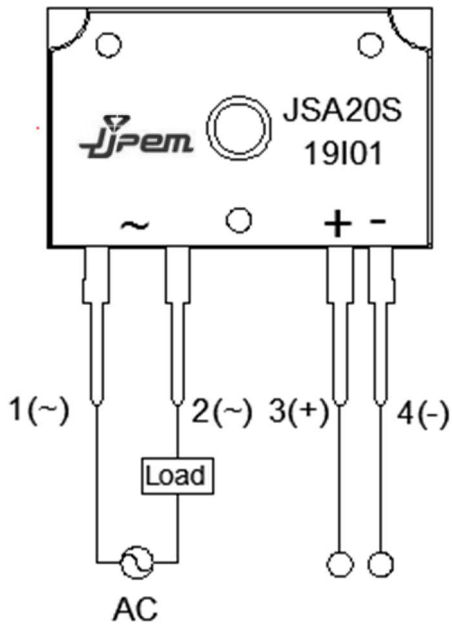

Equivalent Circuit Block Diagrams
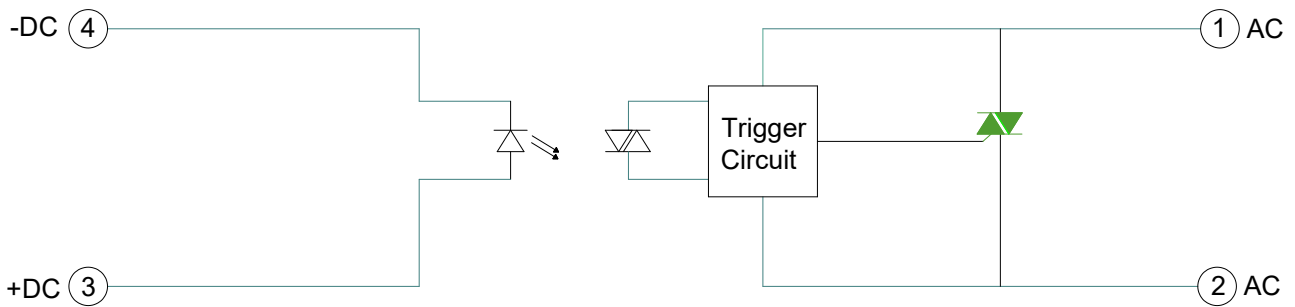

Mechanical Characteristics
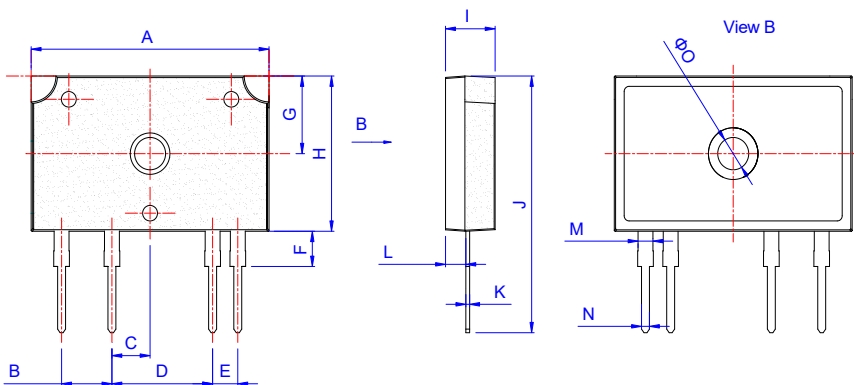
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		24	24.3		0.945	0.957
B	4.98	5.08	5.18	0.196	0.200	0.204
C	3.75	3.85	3.95	0.148	0.152	0.156
D	10.06	10.16	10.26	0.396	0.400	0.404
E	2.44	2.54	2.64	0.096	0.100	0.104
F	3.2	3.4	3.6	0.126	0.134	0.142
G	7.35	7.5	7.65	0.289	0.295	0.301
H		15	15.3		0.591	0.602
I		5	5.2		0.197	0.205
J		24.8	25.2		0.976	0.992
K	0.33	0.38	0.43	0.013	0.015	0.017
L	1.9	2.05	2.2	0.075	0.081	0.087
M		1.5			0.059	
N	0.75	0.8	0.85	0.030	0.031	0.033
O	3	3.13	3.3	0.118	0.123	0.130

Thermal Derate Information

Load current(A)

Ambient temperature(℃)
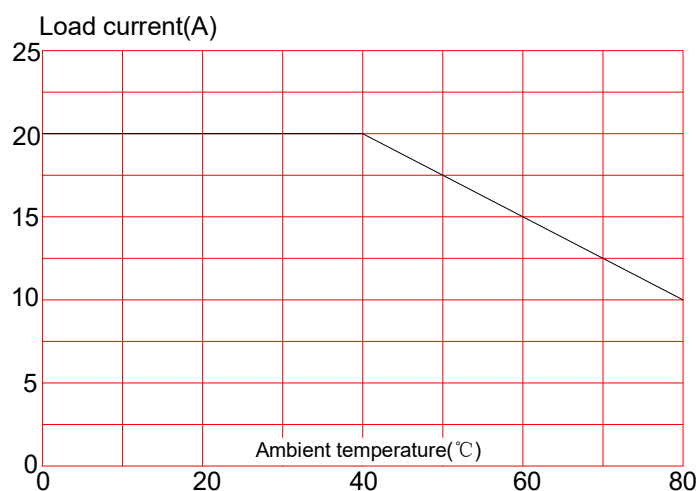
SURGE CURRENT INFORMATION

20A

Surger current(A)

Surger duration(S)
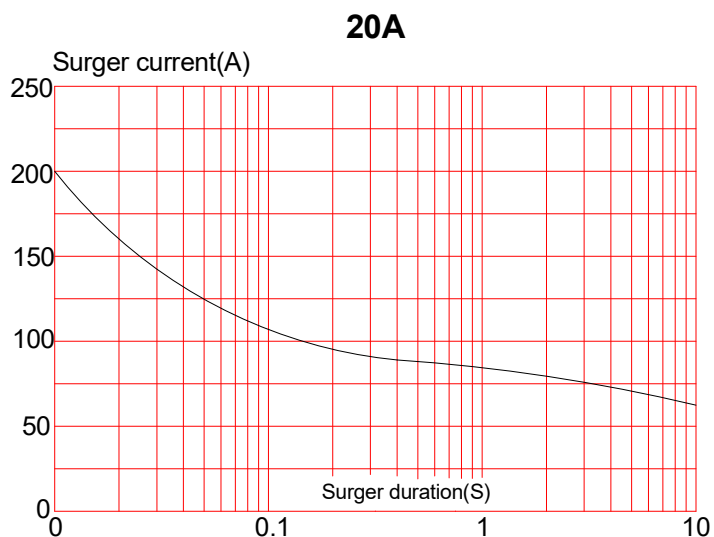
Instructions and Precautions

1.The heat produced by power dissipation of relay should be radiated by case, if the heat dissipation condition around relay is bad, the output load current will be reduced by half. If continue to use, it is necessary to install matching radiator, the temperature of baseplate of radiator should no more than 80□ when working. If the ambient temperature is too high, it is necessary to use air patenting to accelerate air flow to ensure better heat dissipation effect.

2. To ensure the solid state relay closely contacts with radiator during installing process to get better heat dissipation effect, please parallel place thermal conductive film between solid state relay and radiator and fix it with screw; please equably daub appropriate amount of thermal grease on the baseplate of solid state relay when installing, if the product is equipped with thermal grease, and fix it with screw.

3. Fix the screws by using less than 4NM moment of force, and fix output and input at the same time, please do not fix one end after dealing with another end.

4. To prevent breakdown of solid state relay caused by overload short circuit, overcurrent or voltage overload working, installing quick-fuse specified for relay is recommended. For inductive load, it is necessary to install voltage-dependent resistor, and RC absorbing circuit at solid output, if the direct current solid state relay is inductive load, fly-wheel diode is necessary.

5. No protecting circuit of input circuit, it is easy to damage when circuit is reverse connected; Please ensure wire connecting is right when using.

6. The storage of solid state relay should anti-moisture, anti-wet, protected from rain, fall and severe collision.

It should be stored in ambient, which is well-ventilated, dry and non-corrosive gases, and the humidity should less than 80%.

7. Please do not use the parameter exceeding this datasheet.