Product data sheet

Specifications



single phase relay, Harmony Solid State Relays, 25A, panel mount, zero voltage switching, thermal pad, input 3 to 32V DC, output 24 to 300V AC

SSP1A125BDT

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Solid State Relays
Provided accessory	Thermal pad
Product or Component Type	Panel mount relay
Device short name	SSP1
Mounting Support	Panel
Number of phases	1 phase
Line Rated Current	25 A
Output switching mode	Zero voltage switching

Complementary

solid state switching type	SCR output Zero voltage switching
test button	Without test button
[Uc] control circuit voltage	3...32 V DC
pick-up voltage	3 V DC turn-on
drop-out voltage	1 V DC turn-off
Response time	0.5 cycle (turn-on) 0.5 cycle (turn-off)
input current range	10 mA at 12 V DC
Output voltage	24...300 V AC
Load current	0.15…25 A
Transient overvoltage	600 V
Maximum I²t for fusing	259 A².s for 8.33 ms at 60 Hz 285 A².s for 10 ms at 50 Hz
Co-ordination type	Type 1 - 25 A miniature circuit breaker (MCB) B Type 2 - 20 A miniature circuit breaker (MCB) B
Maximum leakage current	1 mA off-state
Maximum voltage drop	<1.15 V on-state
DV/dt	500 V/µs off-state at maximum voltage
Power factor	0.5 (with maximum load)
Insulation resistance	1000 MOhm at 500 V DC

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Maximum capacitance	10 pF for input/output
Dielectric strength	4 kV AC for input/output 4 kV AC for input or output to case
[Uimp] rated impulse withstand voltage	6 kV output to case 6 kV input to output
Tightening torque	1.5...1.7 N.m for input 2...2.2 N.m for output
Connections - terminals	Screw terminals 0.2...3.3 mm², 24 AWG...12 AWG) with cable end input Screw terminals 0.5...5.26 mm², 20 AWG...10 AWG) with cable end output Screw terminals 0.2...3.3 mm², 24 AWG...12 AWG) without cable end input Screw terminals 0.5...8.26 mm², 20 AWG...8 AWG) without cable end output Forked type tag connectors 9.2 x 4 mm input Ring lugs 9.2 x 4 mm input Forked type tag connectors 11.7 x 4.5 mm output Ring lugs 11.7 x 4.5 mm output
Thermal resistance	0.8 °C/W junction to case
thermal pad impedance	0.48 °C-in²/W at 25 psi
Local signalling	LED, green input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years
Net Weight	3.1 oz (89.2 g)
Overvoltage category	III
Device presentation	Complete product

Environment

Ambient Air Temperature for Operation	-40…176 °F (-40…80 °C)
Ambient Air Temperature for Storage	-40…257 °F (-40…125 °C)
Pollution degree	2
Marking	UL CE CSA EAC
Standards	UL 508 IEC 60950-1 IEC 62314 CSA C22.2 No 14-13
Product Certifications	EAC CE UL CSA

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3606485442044
Returnability	Yes
Country of origin	US

Packing Units

Unit Type of Package 1	PCE

Nbr. of units in pkg.	1
Package 1 Height	1.496 in (3.800 cm)
Package 1 Width	1.890 in (4.800 cm)
Package 1 Length	2.559 in (6.500 cm)
Package weight(Lbs)	3.316 oz (94.000 g)
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Height	5.9 in (15 cm)
Package 2 Width	5.9 in (15 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	6.984 lb(US) (3.168 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**2 617 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**1 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**2 616 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**134201bc-d293-4667-9cca-10a7f11729e0**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**

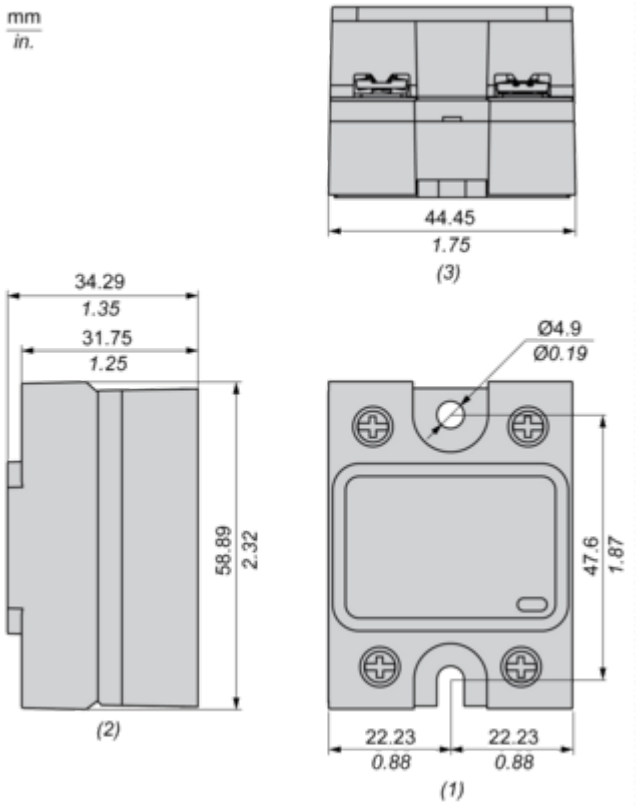
Use Again

Repack and remanufacture

Recyclability potential, in %	**56**
Circularity Profile	End of Life Information
Take-back	**No**

Dimensions Drawings

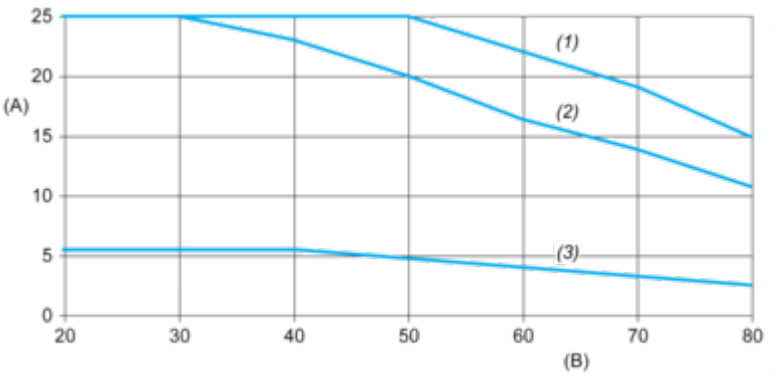
Dimensions



(1) Front view
(2) Side view
(3) Bottom view

Performance Curves

Derating Curves



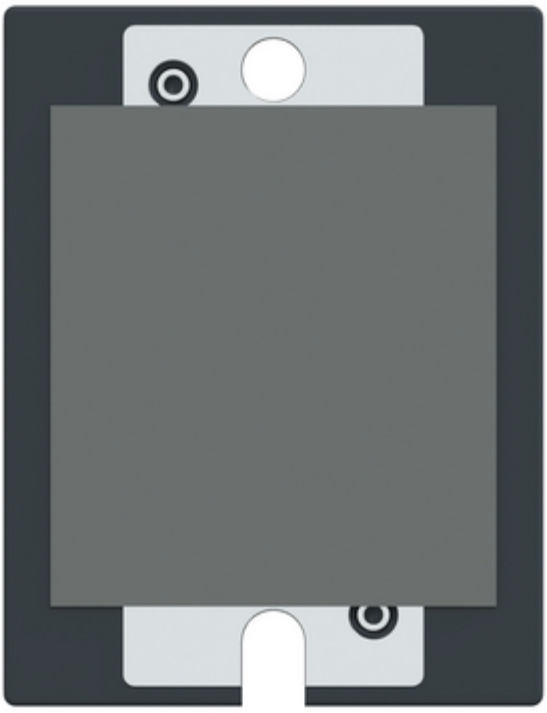
A : Load Current (Arms)
B : Ambient Temperature (°C)
(1) For Heatsink SSRHP17
(2) For Heatsink SSRHP25
(3) No Heatsink

Image of product / Alternate images

Alternative












~1/L1
2/T1~
SSP1A••••••T
INPUT : •• - •••VAC
LOAD : •• - •••VAC
•• - •••A
Input
Schneider Electric
-/~4/A2
3/A1+/~