Subminiature Power Relay ETS

- Slim size (width 5mm)
- High breakdown voltage 4kV (between coil and contacts)
- Surge voltage up to 6kV (between coil and contacts)
- Clearance/creepage distance: 8mm
- High sensitive: 170mW
- 1 Form A and 1 Form C configurations

Options and ordering codes

ETS - 1A N - S - L - 12VDC

Contact Form

SPNO	1A
SPCO	1C

Coil Voltage

L	RoHS Compliant

Contact Material

AgNi	N
AgNi + Au Plate	N1

Sealing

S	Sealed

Contact Data

Contact arrangement	1A, 1C
Initial contact resistance Max.	100mΩ (at 1A 6VDC) Gold plated: 30mΩ (at 1A 6VDC)
Contact material	AgNi
Contact Rating (Res. load)	6A 250VAC / 30VDC
Max. switching voltage	400VAC / 125VDC
Max. switching current	6A
Max. switching power	1500VA / 180W
Mechanical Life	$1x10^7$ OPS
Electrical Life	NO / NC: $1x10^4$ OPS (at 85˚C)

Characteristics

Initial Insulation Resistance		1000MΩ @ 500VDC
Dielectric Strength	Between coil & contact	4000VAC 1min.
	Between open contacts	1000VAC 1min.
Operate time (at nomi. Volt)		Max. 8ms
Release time (at nomi. Volt)		Max. 4ms
Shock Resistance	Functional	$50m/s^2$
	Destructive	$1000m/s^2$
Vibration Resistance		10 to 55Hz 1mm DA
Humidity		5 to 85% RH
Ambient Temp		-40˚C to +85˚C
Termination		PCB
Unit Weight		5.4g
Construction		Sealed IP67, Flux proof

Coil

Coil power	5 to 24VDC: 170mW 48VDC, 60VDC: 210mW

Coil Data

20˚C

Coil Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max allowable voltage (VDC 85˚C)	Coil Resistance Ω ± 10%
5	3.75	0.25	7.5	147±10%
6	4.50	0.30	9.0	212±10%
9	6.75	0.45	13.5	476±10%
12	9.00	0.60	18	848±10%
18	13.5	0.90	27	1906±15%
24	18.0	1.20	36	3390±15%
48	36.0	2.40	72	10600±15%
60	45.0	3.00	90	16600±15%

Notes: 1) When require pick-up voltage=70% nominal voltage, special order allowed
2) When install 1 Form C type of ETS, please do not make the relay side with 5mm width down

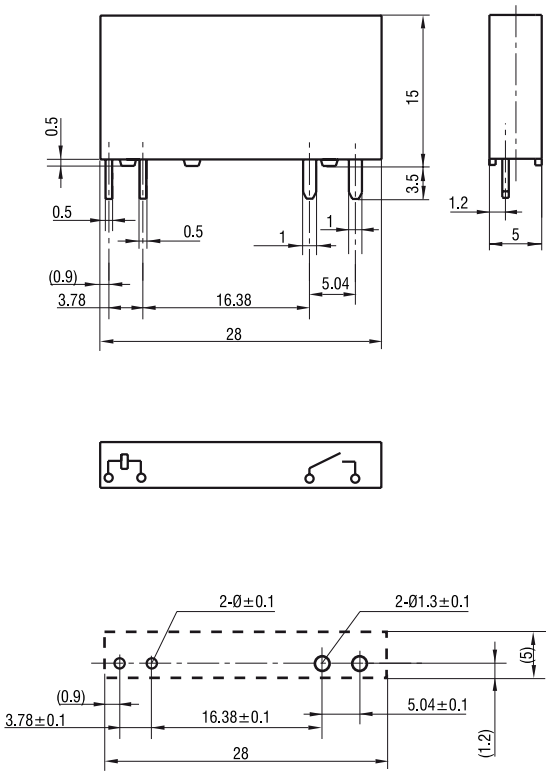
Safety Approval Ratings

UL & CUR	6A 30VDC Resistive: 6A 277VAC Pilot duty: R300

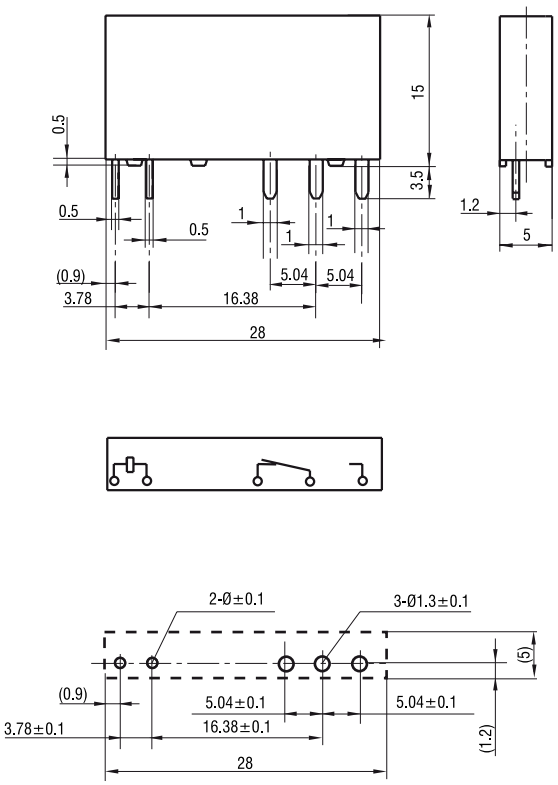
Outline dimensions (mm)

Wiring diagram and PC Board layout

1A



1C



Characteristic Curve