



*Rely on ECE's Relays,
and You Always Relax!*

GENERAL CONTROL RELAY ETR GZR SERIES

■ FEATURES

- 8mm clearance and creepage distance.
- Slim size with high capacity up to 25A.
- Dielectric Strength 5,000 VAC. Surge resistance (7000V).
- Class F insulation system.
- Halogen free series available.
- Comply with RoHS and REACH regulations.

■ SAFETY STANDARD

UL&CUL E141060 UL 508

Model	Load	Cycles
GZR	NO:	
	20A, 277Vac, 40°C, General Use	100K
	20A, 30Vdc, 40°C, L/R=0	80K
	25A, 125Vac, 70°C, General Use	100K
	1 HP, 240-250Vac, 40°C	50K
	TV-10, 120Vac, 40°C	25K
	NC:	
	16A, 277Vac, 40°C, General Use	100K
	16A, 30Vdc, 40°C, L/R=0	80K
	1 HP, 240-250Vac, 40°C	50K

TUV R50292866 IEC 61810-1

Model	Load	Cycles
GZR	NO:	
	20A, 277Vac, cosφ=1, 85°C	10K
	NC:	
	16A, 277Vac, cosφ=1, 85°C	10K

TUV R50292866 IEC 62368-1

Model	Load	Cycles
GZR	NO:	
	20A, 277Vac, cosφ=1, 85°C	10K
	NC:	
	16A, 277Vac, cosφ=1, 85°C	10K

■ SPECIFICATIONS(AT INITIAL VALUE)

Contact Resistance	100 mΩ Max. @1A,6VDC
Operate Time	15 mSec. Max.
Release Time	5 mSec. Max.
Dielectric Strength	Between Coil & Contact: 5,000VAC at 50/60Hz for one minute Between Contacts: 1,000VAC at 50/60Hz for one minute
Surge Strength	7,000V (between coil & contact 1.2x50μSec.)
Insulation Resistance	1,000MΩ Min. at 500VDC
Max. On/OFF Switching	Electrical: 6 Cycles per Minute Mechanical: 300 Cycles per Minute
Temperature Range	-40°C~+85°C
Humidity Range	45~85%RH
Coil Temperature Range	GZR-D: 45°C Max. GZR-L: 35°C Max.
Vibration	Destruction: 10 to 55 to 10 Hz, 0.75 mm single amplitude(1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75 mm single amplitude(1.5mm double amplitude)
Shock	Destruction: 1,000 m/s ² Malfunction: 100 m/s ²
Mechanical Life	10 ⁷ operations at no load condition.
Weight	About 17g



■ COIL SPECIFICATION AT 20°C

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ($\Omega \pm 10\%$)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
GZR D/DM	3	240	13	Abt. 0.72	70% Max.	15% Min.	130%
	5	144	36				
	6	120	50				
	9	80	112.5				
	12	60	200				
	15	48	313				
	18	40	450				
	24	30	820				
	48	15	3,300				
GZR L/LM	3	176.7	17	Abt. 0.53	70% Max.	15% Min.	130%
	5	106	47				
	6	88.3	68				
	9	58.8	155				
	12	44.2	275				
	15	35.3	425				
	18	29.4	612				
	24	22.08	1,100				
	48	11.04	4,170				

■ PART NUMBER SYSTEM

ETR - GZR - SH - 1 12 D M F - H Z

Z: RoHS Compliant

Material requirements

Nil: Standard

H: Halogen Free

Insulation System

Nil: Standard Class

F: F Class

Contact Form

Nil: One Form C

M: One Form A

Coil Type

D: Standard DC Coil

L: High Sensitivity DC Coil

Coil Voltage

03: 3V, 05: 5V, 06: 6V, 09: 9V, 12: 12V, 15V: 15V, 18: 18V, 24: 24V, 48: 48V

Number of Poles

1: One Pole

Type of Sealing

S: Dust Protected Relays

SS: Flux Proofed Relays

SH: Wash Tight Relays

Model Name: GZR

Series Name: ETR

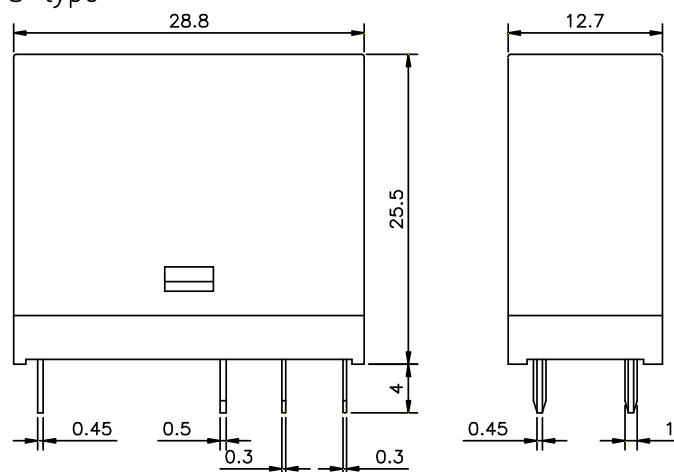


*Marking without: "ETR" & "Z".

■ **DIMENSIONS** ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

ETR GZR

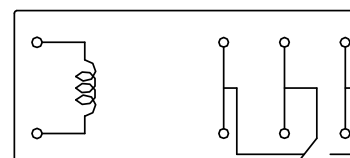
S type



One Form A

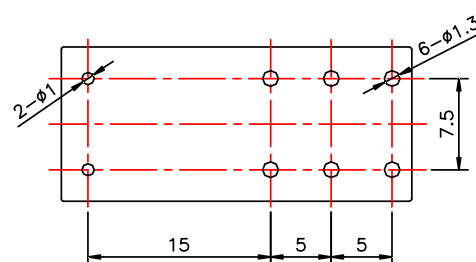
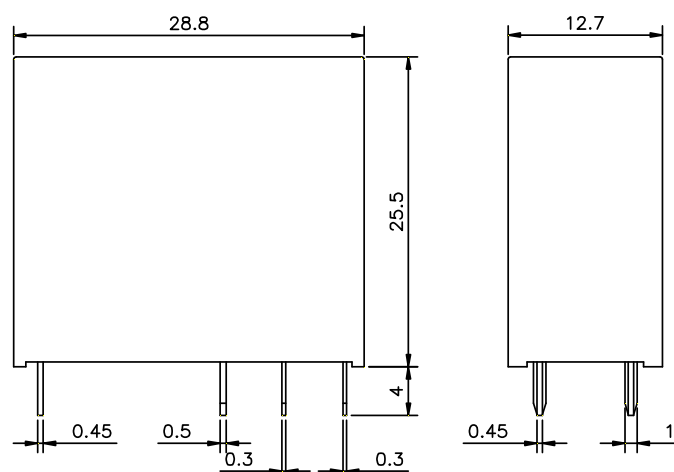


One Form C



BOTTOM VIEW

SS/SH type



P.C.B. LAYOUT