



# GME. SUBMININATURE POWER RELAY

## FEATURES

- ▶ 23.0 X 16.2 X 10.2(H) MM.
- ▶ 20A MAX SWITCHING CAPACITY, SUITABLE FOR COMPLEX LOAD.
- ▶ SENSITIVE COIL, MEETS ENERGY SAVING REQUIREMENT.
- ▶ MEETS UL TV-8 STANDARD, LOW PROFILE.
- ▶ UL CLASS F AND GLOW WIRE VERSION AVAILABLE.



 File Number: E513402  
 File Number: R50463326

## CONTACT RATINGS

Contact Form	1A
Contact Resistance	≤100mΩ (1A 6VDC)
Contact Material	Ag Alloy (AgSnO <sub>2</sub> , AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub> , AgCdO)
Rated Load (Resistive)	1 FORM A
	20A 277VAC 10A 30VDC
Max. Switching Current	20A
Max. Switching Power	5,540VA / 300W
Max. Switching Voltage	277VAC / 30VDC
Min. Permissible Load	100mA at 5VDC

## CHARACTERISTICS

Operate Time	≤ 15ms		
Release Time	≤ 5ms		
Insulation Resistance	1,000MΩ (500VDC)		
Dielectric Strength	I / O	O / O	
	2,500VAC 1min	1,000VAC 1 min	
Impulse Withstand Voltage	4.5 kV (1.2 x 50μs)		
Shock Resistance	Non-energized	Destruction	Malfunction
	100 m/s <sup>2</sup> (10G)	1,000 m/s <sup>2</sup> (100G)	100 m/s <sup>2</sup> (10G)
Vibration Resistance	Destruction		Malfunction
	10 to 55 Hz, (1.5mm double amplitude)		10 to 55 Hz, (1.5mm double amplitude)
Ambient Temperature	Operating: -40°C to +105°C with no icing or condensation		
Ambient Humidity	Operating: 5% to 85%		
Mount Type	PCB Pins		
Weight	Approx. 9g		

NOTE: The data shown above are initial values.

## COIL DATA

Standard	Approx. 200mW				
Rated Voltage (VDC)	Operate Voltage (VDC)	Release Voltage (VDC)	Max. Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%
5	≤4	≥0.5	6.5	40	125
6	≤4.8	≥0.6	7.8	33.3	180
9	≤7.2	≥0.9	11.7	22.2	405
12	≤9.6	≥1.2	15.6	16.7	720
18	≤14.4	≥1.8	23.4	11.1	1,620
24	≤19.2	≥2.4	31.2	8.3	2,880
48	≤38.4	≥4.8	62.4	4.17	11,520

## LIFE EXPECTANCY DATA

Mechanical Life Expectancy	10,000,000 Operations
Electrical Life Expectancy	1 FORM A
	50,000 Operations (20A 277VAC Resistive Load, 1s ON / 9s OFF)
	100,000 Operations (10A 250VAC Resistive Load, 1s ON / 9s OFF)
	100,000 Operations (16A 125VAC Resistive Load, 1s ON / 9s OFF)
	1,000 Operations (1/2HP 125VAC Resistive Load, 1s ON / 9s OFF)

NOTE: The electrical life data items shown are possible at 23°C

### SAFETY APPROVALS

ULus / cUL TV-8	Coil Rating	Contact Rating
	3 to 48VDC	NO 20A 277VAC 85°C 50,000 Cycles 8A 125VAC 40°C TV-8 25,000 Cycles
TUV	Coil Rating	Contact Rating
	3 to 48VDC	NO 16A 250VAC 85°C 50,000 Cycles 10A 250VAC / 30VDC 105°C 100,000 Cycles

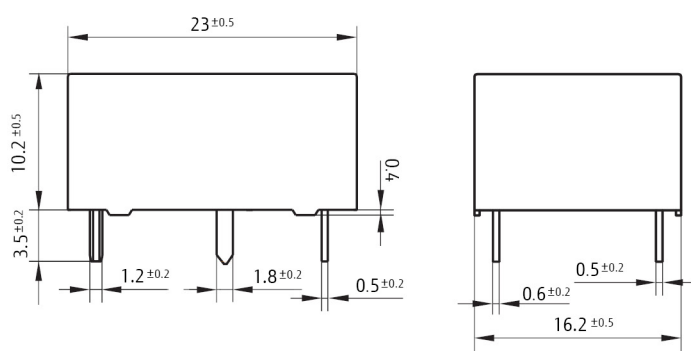
### ORDERING INFORMATION

Type	Contact / Seal Key	Variation Key	Coil Key
<b>GME</b> - <b>S</b> <b>1</b> <b>A</b> <b>D</b>	<b>L</b> <b>F</b>	<b>12</b> <b>VDC</b>	
<b>Seal Type</b>	Nil: Flux Proof; S: Plastic Sealed		X / XX (3 ~ 48): Coil DC Voltage Value <b>Coil Voltage</b>
<b>NO of Pole</b>	1: Single Pole		
<b>Contact Form</b>	A: Form A / Normally Open		Nil: Standard Insulation; F: Class F Insulation <b>Insulation Class</b>
<b>Contact Material</b>	Nil: Silver Alloy (ROHS Complaint); D: Silver Alloy: AgCdO		Nil: Standard Coil: 0.2W; L: Sensitive Coil: 0.15W (On Request Only) <b>Power Consumption</b>

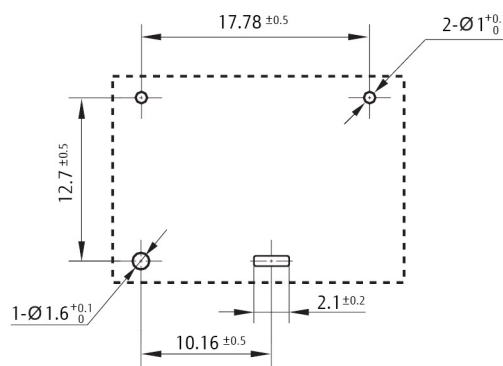
Example: GME-S1A/12VDC stands for 1 FORM A GME relay, coil voltage is 12VDC. For full list of ordering codes please visit our website.

### DIMENSIONS (UNIT: MM)

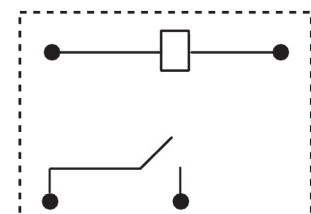
Outline Dimensions



PCB Layout (Bottom View)



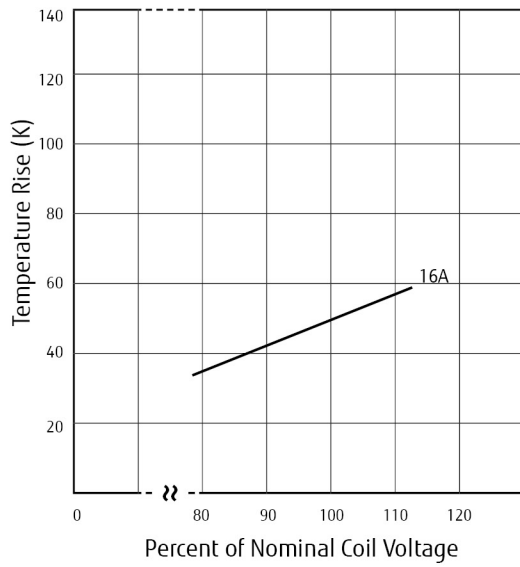
Wiring Diagram



### ENGINEERING DATA

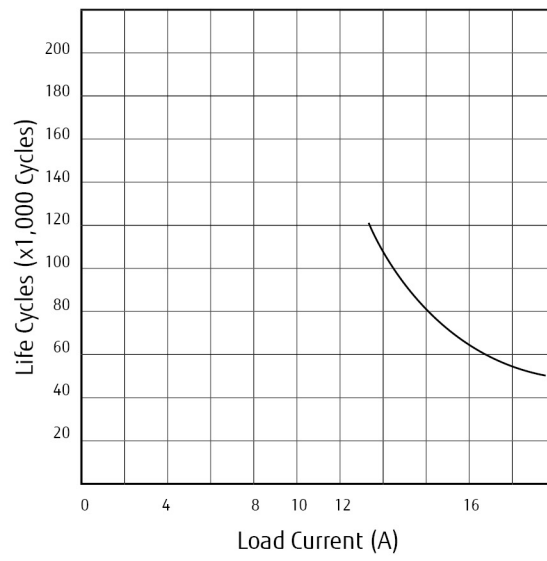
Coil Temperature Rise

Ambient Temp.: 70°C; Measure Distance: 10mm

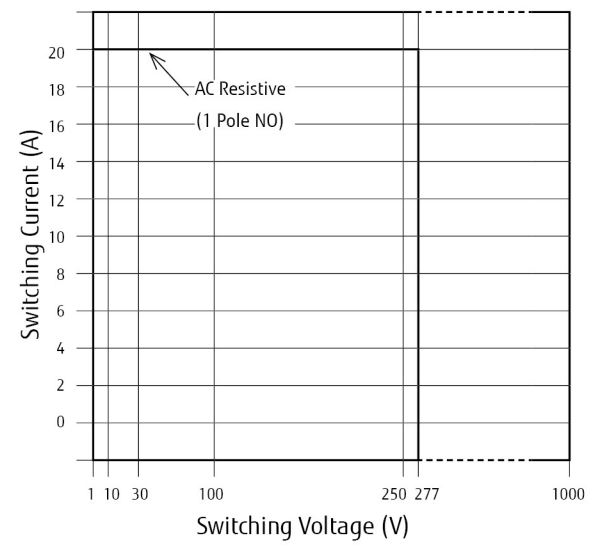


Electrical Endurance Curve

NO: 277VAC Resistive 1s ON / 1s OFF



Max. Switching Capacity



### PRINT LAYOUT

Below layout is for reference only.

TOP PRINTING

LASER PRINTED ON BLACK CASE

### PACKAGE INFORMATION

Package 1: PVC Tray

Inner Package Type & Quantity	50Pcs Per PVC Tray
Outer Package Type & Quantity	1,000pcs per Carton with Logo and Sticker
Outer Package Dimension & Weight G.W. / N.W.	32 x 22 x 20 cm; 9.8Kgs / 9Kgs