

## <FEATURE>

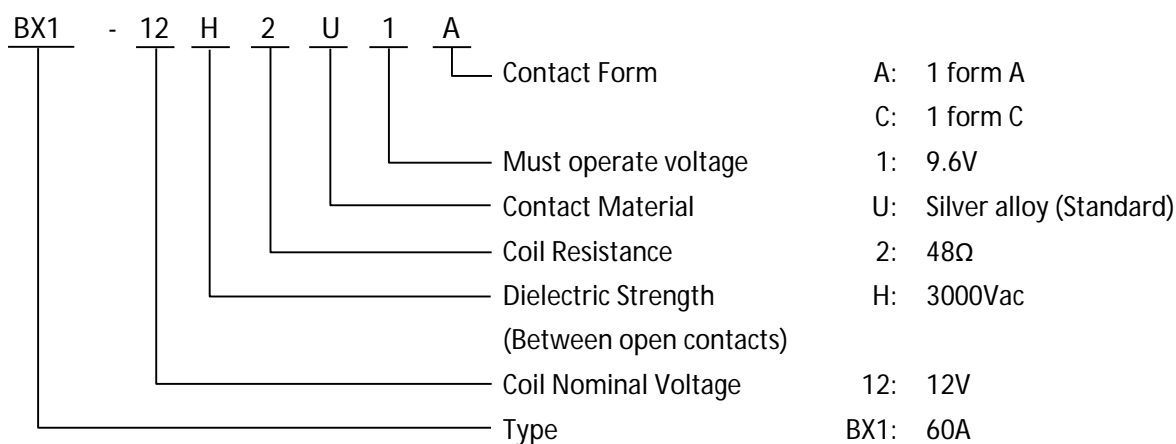
- Large current capacity for AC load (60A rated current)
- High heat resistance
- Small size
- Flux tight housing
- Pb free



## <APPLICATION>

- On Board Charger (OBC) of Electric Vehicle (PHEV and BEV)

## <PART NUMBER SYSTEM>



Contact Form	Rated Current	Coil Nominal Voltage	Coil Resistance	Dielectric Strength (Between open contacts)	Unsealed Type
1 form A	60A	12VDC	48Ω	3000VAC	BX1-12H2U1A
1 form C	60A	12VDC	48Ω	3000VAC	BX1-12H2U1C

## &lt;COIL RATING&gt;

(Ambient temperature: 20°C)

Coil Nominal Voltage	Nominal Operating Power	Coil Resistance ( $\pm 10\%$ )	Must Operate Voltage <sup>(1)</sup>	Must Release Voltage <sup>(1)</sup>	Holding Voltage
12VDC	3.0W	48 $\Omega$	9.6VDC	0.6VDC	30-35% of rated voltage (at 105°C)

(1) Test by pulse voltage

## &lt;SPECIFICATIONS&gt;

(Ambient temperature: 20°C)

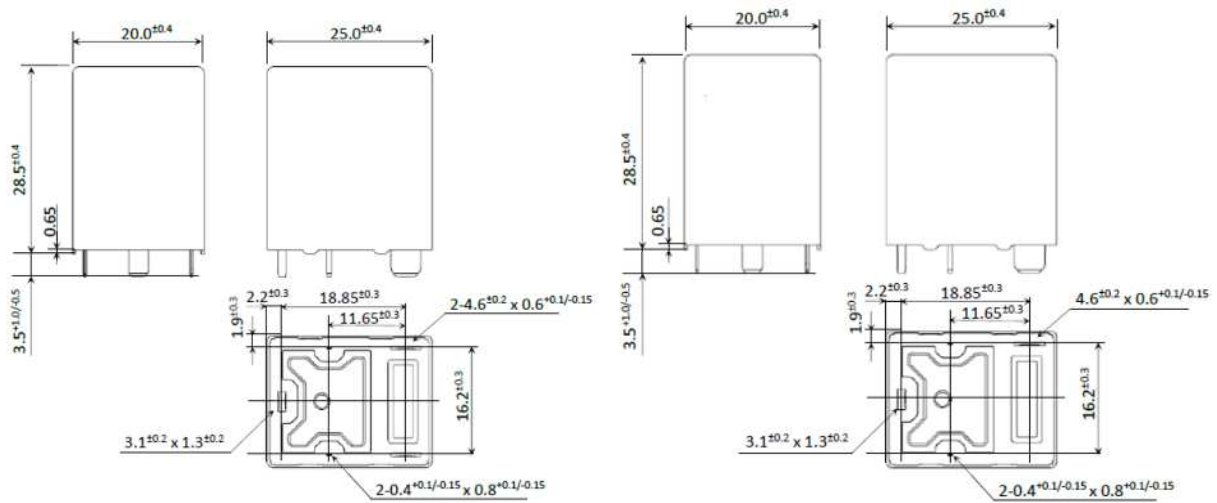
Items		Specifications	
Contact form		1 form A	1 form C
Contact rating	Max. switching voltage	600Vac	
	Max. continuous current <sup>(2)</sup>	60A (at 105°C, initial, Cable size 14mm <sup>2</sup> )	
	Contact resistance	N/O: 2m $\Omega$ max. (6Vdc-20A, initial)	N/O: 2m $\Omega$ max. N/C: 3.5m $\Omega$ max. (6Vdc-20A, initial)
	Rated load	60A-277Vac, Resistive load	
Contact material		Silver alloy	
Operate time <sup>(3)</sup>		15ms max.	
Release time <sup>(3)</sup>		10ms max.	
Insulation resistance		1000M $\Omega$ min. at 1000Vdc	
Breakdown voltage	Between open contacts	3000Vac, 50/60Hz for 1minute	
	Between coil and contact	4000Vac, 50/60Hz for 1minute	
Shock resistance	Misoperation	98m/s <sup>2</sup>	
	Destructive failure	980m/s <sup>2</sup>	
Vibration resistance	Misoperation	10 to 55Hz, 1.5mm DA	
	Destructive failure		
Ambient temperature		-40 to +105°C (no freezing and condensation)	
Life expectancy	Mechanical	300,000 cycles	
	Electrical <sup>(4)</sup>	Making 0A/Carrying 60A/ Breaking 0A-277Vac at 105°C 100,000 cycles Making 2A/Carrying 60A/ Breaking 2A-277Vac at 105°C 50,000 cycles	
Weight		19g typical	25g typical

(2) After the rated voltage is applied to the coil for 200ms, the coil voltage is reduced to the holding voltage.

(3) Excluding contact bounce without flywheel coil diode.

(4) Please contact EM Devices Corporation for the performance of plastic sealed type.

<DIMENSIONS>



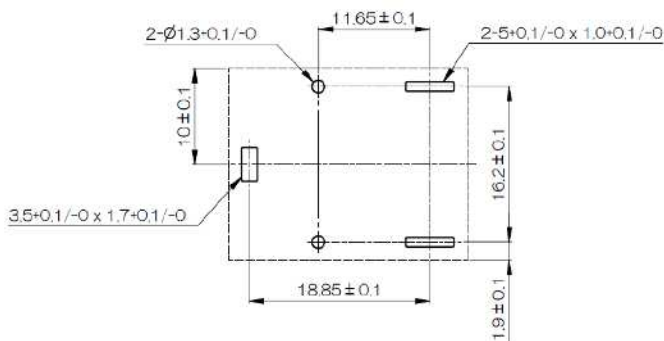
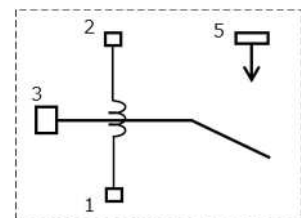
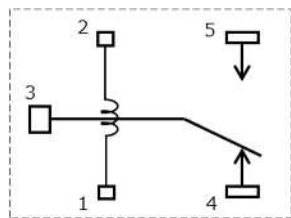
[1 form C]

[1 form A]

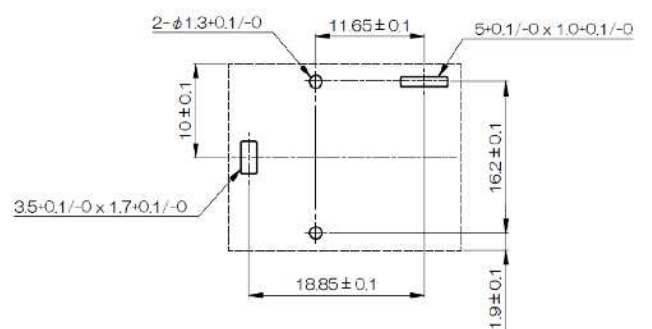
\* AFTER SOLDER DIP

<Unit: mm>

<SCHEMATIC AND PCB PAD LAYOUT (BOTTOM VIEW)>



[1 form C]



[1 form A]

<Unit: mm>

<NOTICE>

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- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact EM Devices for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "AUTOMOTIVE POWER RELAY USER'S MANUAL" in web site. (<https://www.em-devices.com/en/>)
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