



Patent: ZL 2010 2 0625647.0



Main Feature

1. Small size (31.9x27.5x19.6 in mm) produces a switching capacity up to 30A for high density P.C.Board mounting technique.
2. The contact form construction is 1A/1B/1C
3. The Surge Resistance of BT90 series is 10,000V
4. Sealing Construction (Free from dust and solder flux):
BT90-SS: Plastic Sealed Type.
5. The selection of plastic insulation material is designed for high temperature and provides better chemical solution performance.
6. RoHS Compliant.

Application

Air Conditioning, Fridge, Washing Machine, etc Household Appliances

Contact Rating

- Nominal Load(Resistive Load Cos ϕ =1)
Contact Capacity
BT90- D.....20A/10A at 250VAC
BT90-DM/DB.....30A at 250VAC
- Max. Allowable Current
BT90-D.....20A
BT90-DM/DB.....30A
- Max. Allowable Voltage
BT90-D/DM/DB.....AC250V
- Max. Allowable Power Force
BT90-D.....5,000VA
BT90-DM/DB.....7,500VA
- Contact Material..... Ag Alloy
- Contact Form..... SPDT&SPST

Performance (at Initial Value)

- Contact Resistance..... $\leq 50m\Omega$ at 6VDC/1A
- Operate Time.....10ms. Max
- Release Time..... 5ms. Max
- Dielectric Strength:
Between Coil & Contact.....2,500VAC at 50/60 Hz
for one minute
Between Contacts.....1,500VAC at 50/60 Hz
for one minute
- Surge Resistance.....10,000V (between Coil
& Contact 1.2x50 μ s)
- Insulation Resistance.....1,000 Mega Ω Min. at
500VDC

- Max. On/Off Switching:
Electrical.....30 Ops per minute
Mechanical.....300 Ops per minute
- Temperature Range..... - 40~85°C
- Humidity Range.....5%~85% RH
- Coil Temperature Rise..... 35°C Maximum
- Vibration:
Endurance.....10 to 55 Hz dual
amplitude width 1.5mm
Error Operation.....10 to 55 Hz dual
amplitude width 1.5mm
- Shock:
Endurance..... 981m/s² Min
Error Operation..... 98.1m/s² Min
- Life Expectancy:
Electrical.....10⁵ Operations at
Rated Resistive
load
Mechanical.....10⁷ Operations at
No load condition
- Weight.....about 23g

Safety Standard & Its File Number

- UL.....E333244
- TUV.....R50267516
- CQC.....CQC11002061851

Coil Specification (at 20 °C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ($\Omega \pm 8\%$)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
BT90-D/DM/DB	5	178.6	28	Abt. 0.9	75% Maximum	10% Minimum	130%
	6	150	40				
	9	100	90				
	12	75	160				
	24	37.5	640				
	48	18.8	2560				

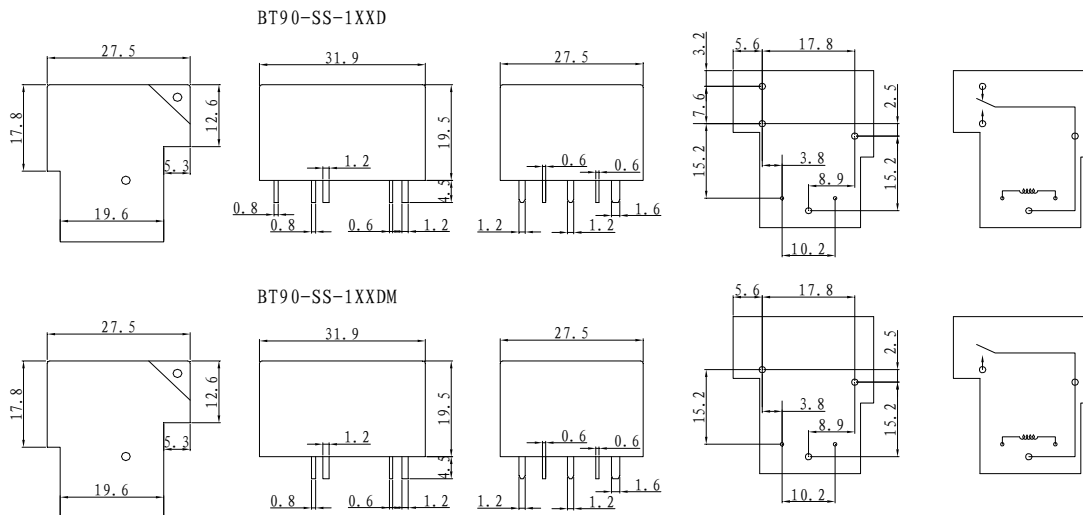
Ordering Information

BT90	-	SS	-	1	12	D	M	
								Contact Form: Nil:One form C M:One form A B:One form B
								Coil Type: D:Standard DC Coil
								Coil Voltage: 03:3V, 05:5V,06:6V,09:9V 12:12V,24:24V,48:48V
								Number of Pole: 1:One Pole
								Type of Sealing: SS:Plastic Sealed Type
								Type: BT90

Classification

Model	BT90		
Coil Sensitivity	Standard DC Coil		
	1A	1B	1C
Plastic Sealed Type	BT90-SS-1□□DM	BT90-SS-1□□DB	BT90-SS-1□□D

Dimension



Dimension Tolerance: < 1mm: ± 0.2 mm
1-5mm: ± 0.3 mm
> 5mm: ± 0.5 mm