



# TRD

## ➤ MAIN FEATURES

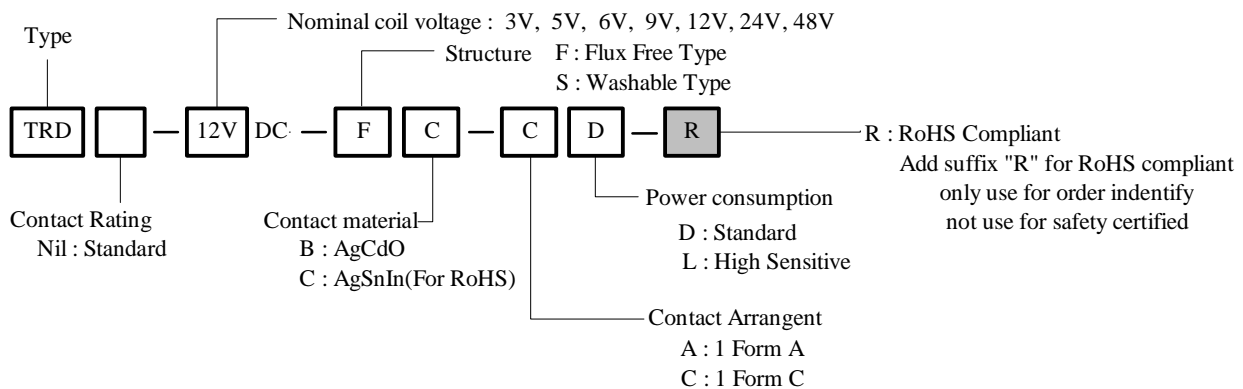
- Switching capacity available by 12A, 15A in spite of small size design for high density P.C. board mounting technique.
- Selection of plastic material for high temperature and better chemical solution performance.
- Sealed types available.
- Simple relay magnetic circuit to meet low cost of mass production.
- UL and TUV recognized.



## ➤ APPLICATIONS

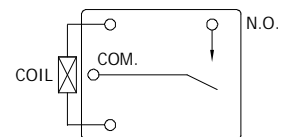
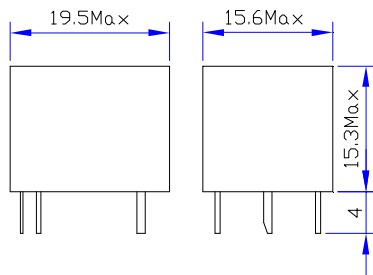
- Domestic appliance, office machine, audio, equipment, automobile, etc.

## ➤ ORDERING INFORMATION

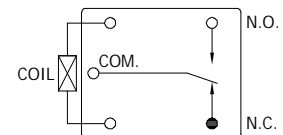
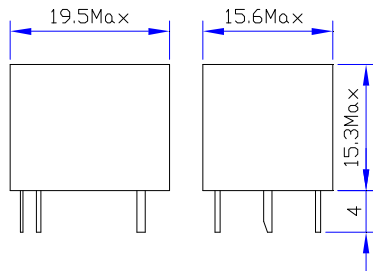


## ■ DIMENSION(unit:mm)      ■ DRILLING(unit:mm)      ■ WIRING DIAGRAM

### TRD Form A TYPE



### TRD Form C TYPE



Remark: 1. In case of no tolerance shown in dimension:  $\pm 0.5$ mm.  
 2. The tolerance without indicating for DRILLING is always  $\pm 0.1$ mm.

## ➤ COIL DATA CHART (AT20°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)
TRD (High Sensitivity)	3	120	25	abt. 0.36W	75% Max.	5% Min.	120%
	5	71.4	70				
	6	60	100				
	9	40	225				
	12	30	400				
	24	15	1600				
TRD (Standard)	3	150	20	abt. 0.45W	75% Max.	5% Min.	110%
	5	89.3	55				
	6	75	80				
	9	50	180				
	12	37.5	320				
	24	18.7	1280				
	48	10	4500	abt. 0.51W			

## ➤ CONTACT RATING

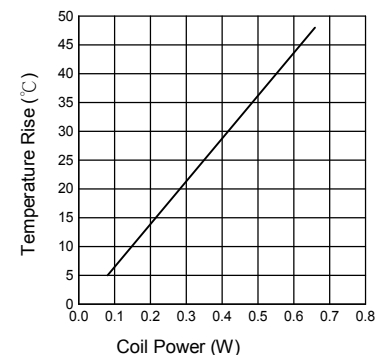
Item	Type	TRD	
		12A	15A
Contact Capacity		12A 28VDC (UL )	12A 28VDC (UL )
Resistive Load (cos $\Phi$ =1)		12A 120VAC	15A 125VAC
		12A 28VDC (TUV)	15A 28VDC (TUV)
		6A 250VAC	10A 250VAC
Rated Carrying Current		12A	15A
Max. Allowable Voltage		250VAC / 110VDC	250VAC / 110VDC
Max. Allowable Current		12A	15A
Max. Allowable Power Force		1440VAC, 336W	1875VA, 420W
Referenced Min. Applicable Load		5VDC, 10mA	5VDC, 10mA
Contact Material		Ag Alloy	

## ➤ PERFORMANCE(at initial value)

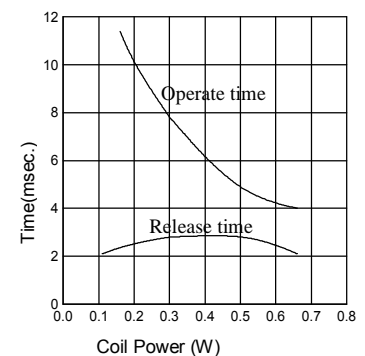
Item	Type	TRD
Contact Resistance		100m $\Omega$ Max.
Operation Time		10msec Max.
Release Time		5msec Max.
Dielectric Strength		
Between coil & contact		1500VAC 50/60Hz (1 minute)
Between contacts		750VAC 50/60Hz (1 minute)
Surge Resistiveness		3000V (between coil & contact 1 $\times$ 40u sec)
Insulation Resistance		100 M $\Omega$ Min. (500VDC)
Max. ON/OFF Switching		
Mechanically		300 operation/min
Electrically		30 operation/min
Operating Ambient Temperature		-30°C to +80°C (No water condensation and no water drop)
Operating Humidity		45% to 85% RH
Coil Temperature Rise		35 deg. Max.
Vibration		
Endurance		10 to 55Hz Double Amplitude 1.5mm
Error Operation		10 to 55Hz Double Amplitude 1.5mm
Shock		
Endurance		980m/s <sup>2</sup> .
Error Operation		98m/s <sup>2</sup> .
Life Expectancy		
Mechanically		1 x 10 <sup>7</sup> operations. Min. (no load)
Electrically		1 x 10 <sup>5</sup> operations. Min. (at rated coil voltage)
Weight		abt. 10grs.
UL		E156521
TUV		R 50062544

## ➤ REFERENCE DATA

Coil Temperature Rise



Operate Time



Life Expectancy

