



## AUTOMOTIVE RELAY ETR JM SERIES

### ■ FEATURES

- Smaller size with the capability of 25A inrush current.
- Applicable for automotive electrical systems.
- Distinctive twin relay structure on JM-2 providing high performance for the use of automotive.
- Resistance to environment with shock and vibration.
- Comply with RoHS, REACH and ELV regulations.
- Safety standard & File number: NIL

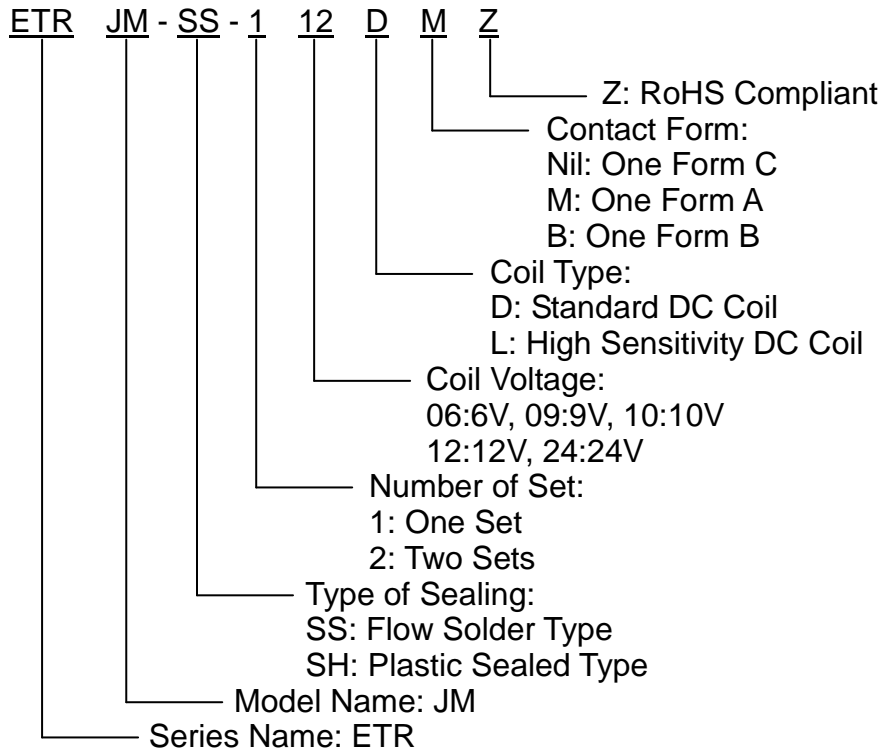
### ■ SPECIFICATIONS

Contact Resistance	Max. 100mΩ at initial value. @1A,6VDC
Contact Capacity	10 Amps at 14VDC 20 Amps at 14VDC, Motor Load ON/0.5s, OFF/9.5s
Operate Time	10m Sec. Max.
Release Time	10m Sec. Max.
Dielectric Strength	Between coil & Contact: 500VAC at 50/60Hz for one minute Between Contacts: 500VAC at 50/60Hz for one minute
Insulation Resistance	100MΩ Min. at 500VDC

### ■ COIL SPECIFICATION AT 20°C

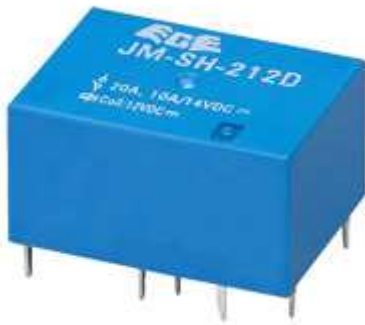
Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
JM-D	6	133	45	Abt. 0.8	60% Max.	5% Min.	150% (for short time carrying current)
	9	90	100				
	10	74	135				
	12	66.7	180				
	24	33.3	720				
JM-L	6	100	60	Abt. 0.6	60% Max.	5% Min.	150% (for short time carrying current)
	9	66.7	135				
	10	55.6	180				
	12	50	240				

## ■ PART NUMBER SYSTEM

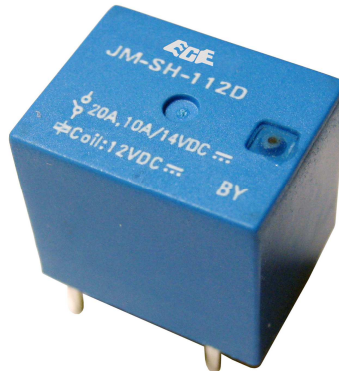


\*Marking without: "ETR" & "Z".

**ETR JM-SH-212D**



**ETR JM-SH-112D**





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

