



# O/E/N 53

## HEAVY DUTY RELAY

### FEATURES

- High performance
- Limiting continuous current upto 70A
- 6.3mm Flat terminals
- Suitable couplers available
- Dual contacts
- PC Version available

### APPLICATION

- A/C Blower
- A/C Compressor
- Engine cooling fan
- Radiator fan
- Starter motors
- Rear window defogger
- Battery disconnection

### TECHNICAL DATA FOR CONTACT SIDE :

| Model                                           | : 53S                                          | 53D                    | 53T                       |
|-------------------------------------------------|------------------------------------------------|------------------------|---------------------------|
| <b>Areas of Application</b>                     | <b>Resistive / Inductive / Capacitive Load</b> |                        |                           |
| Contact Configuration                           | : 1 Form A (1 NO)                              | 1 Form A (1 NO) [Dual] | 1 Form A (1 NO) [Dual]    |
| Contact Material                                | : Silver Nickel                                | Silver Nickel          | Silver Nickel / Tungsten* |
| Contact Rating at 23°C - 13.5 VDC (Res.):       | 40A                                            | 50A                    | 70A                       |
| 28 VDC (Res.):                                  | 20A                                            | 25A                    | 35A                       |
| Electrical Life in No. of Operations Min.       | : $1 \times 10^5$                              | $1 \times 10^5$        | $1 \times 10^5$           |
| Mechanical Life in No. of Operations Min.       | : $1 \times 10^6$                              | $1 \times 10^6$        | $1 \times 10^6$           |
| Contact Voltage Drop at 10 A (Max.)             | : 30mV                                         | 30mV                   | 30mV                      |
| Maximum Switching Current @ 12.8 VDC For 3 Sec. | : 120A                                         | 150A                   | 240A                      |

\*Dual Contact with Tungsten pre-contact / Silver Nickel main contact

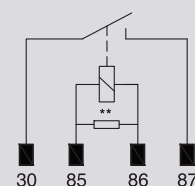
### GENERAL DATA FOR COIL SIDE

|                    |                          |
|--------------------|--------------------------|
| Nominal Coil Power | : 1.92W (Approx)         |
| Operate Time       | : 15 milli Seconds (Typ) |
| Release Time       | : 15 milli Seconds (Typ) |

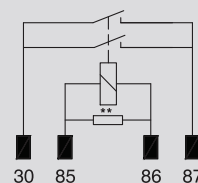
### OPERATING CONDITIONS

|                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
| Ambient Temperature    | : -25°C to +85°C                                                  |
| Maximum Temperature    | : 155°C                                                           |
| Dielectric Strength    |                                                                   |
| Between open contacts  | : 500 VRMS                                                        |
| Between coil & contact | : 750 VRMS                                                        |
| Insulation Resistance  | : 100 MegaOhms Min. at 500 VDC, 25°C RH 50                        |
| Vibration Resistance   | : 10-50Hz, 4.4g<br>(Change in switching state not more than 10μS) |
| Shock Resistance       | : 30g, 8mS<br>(Change in switching state not more than 10μS)      |
| Weight                 | : 45 gms Max.                                                     |

### WIRING DIAGRAM



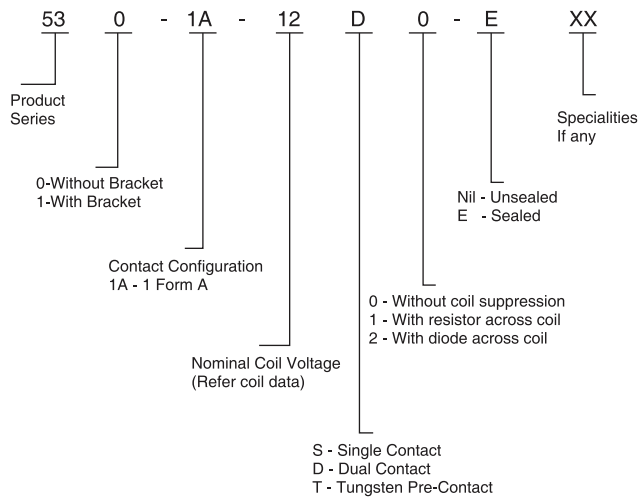
Single Contact



Dual Contact

\*\* Parallel resistor or Diode Optional

## HOW TO ORDER



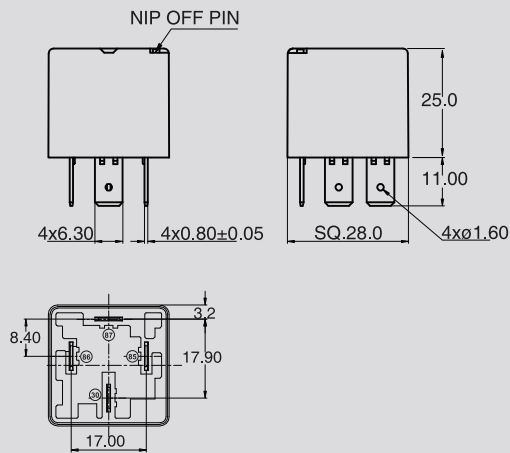
## COIL DATA

| Nominal Voltage VDC | ***Pick-up Voltage VDC Version D | Pick-up Voltage VDC Version T | Coil Resistance without parallel resistor in Ohms $\pm 10\%$ |
|---------------------|----------------------------------|-------------------------------|--------------------------------------------------------------|
| 6                   | 4.8                              | 5.2                           | 20                                                           |
| 9                   | 6.8                              | 7.2                           | 45                                                           |
| 12                  | 9.0                              | 9.6                           | 75                                                           |
| 18                  | 13.5                             | 14.4                          | 165                                                          |
| 24                  | 18.0                             | 19.2                          | 250                                                          |
| 48                  | 36.0                             | 38.4                          | 1100                                                         |
| 100                 | 82.5                             | 88.0                          | 5500                                                         |

\*\*\*Lower pick-up voltages available on request

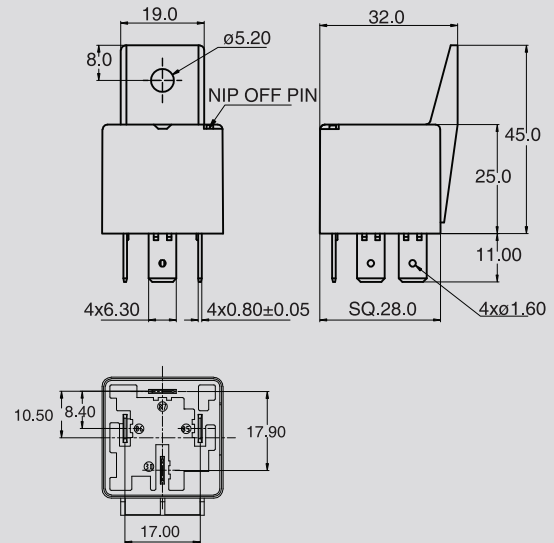
## DIMENSIONS

### RELAY WITHOUT BRACKET



Note : Nip - off pin may be removed after soldering and cleaning for ventilation.

### RELAY WITH BRACKET



## MECHANICAL DATA

### COVER RETENTION

Pull : 20KgF

Push : 20KgF

### TERMINAL STRENGTH

Pull : 10KgF

Push : 10KgF

## AVAILABLE ON REQUEST

- For other custom solutions consult factory