

# Standard recovery diode (Stud version)



## Features:

- High surge current capability
- Stud cathode and stud anode version
- Wide current range
- Metric device version available

## Typical applications

- Battery charges
- Converters
- Power supplies
- Machine tool controls
- Welder
- Motor controls

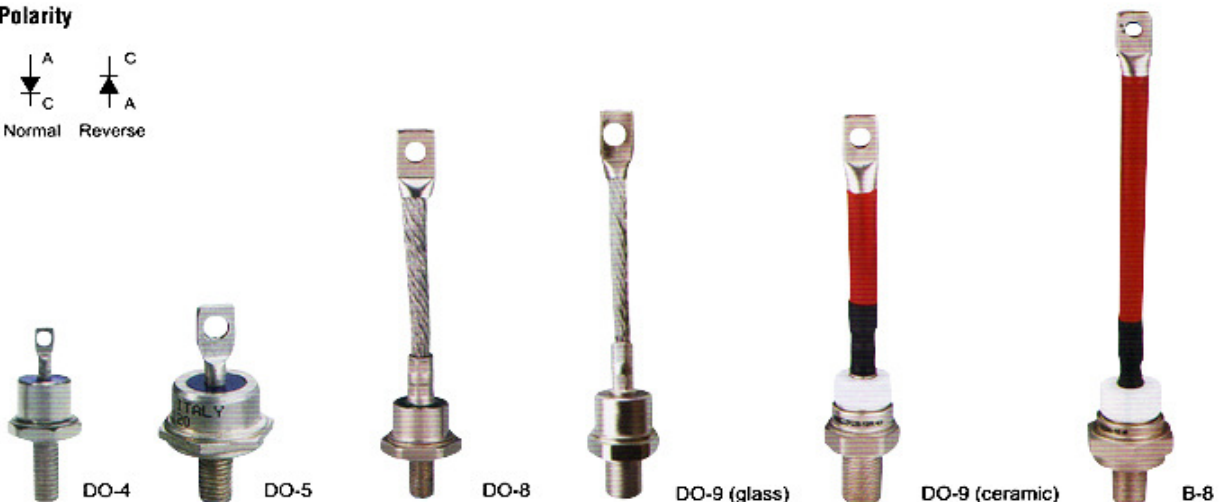
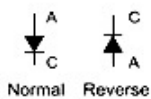
## Ordering information table

### FR 70 HF R 120 M L

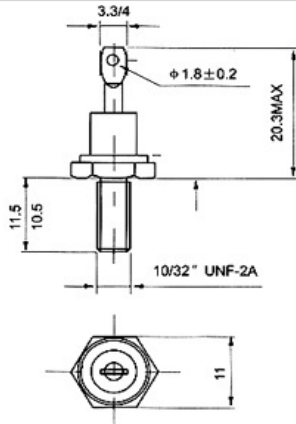
1 2 3 4 5 6 7

1. None=Standard recovery diodes; FR=Fast recovery diodes;
2. Current code=IF(AV)
3. Outline code:F=DO-4 case 6A□25A; HF=DO-5 case 30A□85A; U=DO-8,DO-9 case 100A□300A;
4. None=Stud normal polarity(cathode to stud); R=Stud reverse polarity(anode to stud);
5. Voltage code=code×10=VRRM
6. None=Standard inch device; M=Metric device;
7. Bigger size

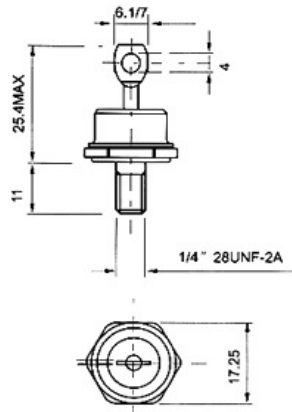
### Polarity



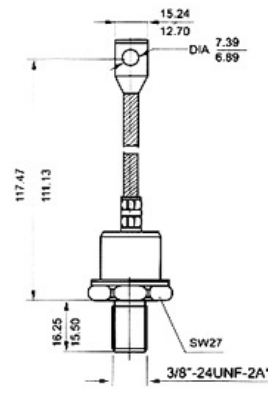
| Type      | $I_{F(AV)}$ | $V_{FM}/I_{FM}$ |      | $I_{FRMS}$ | $V_{RRM}$ | $I_{RRM}$ | $R_{je}$ | $T_j$          | $M^2$ | $W_t$ | Outline |
|-----------|-------------|-----------------|------|------------|-----------|-----------|----------|----------------|-------|-------|---------|
|           | THS55°C     | 25°C            |      |            |           |           |          |                |       |       |         |
|           | A           | V               | A    | A          | V         | mA        | °C/W     | °C             |       |       |         |
| 6F(R)     | 6           | 1.1             | 18   | 9.0        | 200-1200  | ≤6        | ≤2.0     | -40°C<br>150°C | ≤1.0  | 0.008 | DO-4    |
| 12F(R)    | 12          | 1.25            | 36   | 190        | 200-1200  | ≤6        | ≤1.2     |                | ≤1.0  | 0.008 |         |
| 16F(R)    | 16          | 1.25            | 48   | 25.0       | 200-1200  | ≤12       | ≤1.2     |                | ≤1.0  | 0.008 |         |
| 25F(R)    | 25          | 1.1             | 75   | 40.0       | 200-1200  | ≤12       | ≤1.2     |                | ≤1.0  | 0.008 |         |
| 30HF(R)   | 30          | 1.3             | 90   | 48.0       | 200-1200  | ≤10       | ≤0.8     |                | ≤2.0  | 0.020 | DO-5    |
| 40HF(R)   | 40          | 1.3             | 120  | 64.0       | 200-1200  | ≤10       | ≤0.8     |                | ≤2.0  | 0.020 |         |
| 50HF(R)   | 50          | 1.4             | 150  | 80.0       | 200-1200  | ≤10       | ≤0.8     |                | ≤2.0  | 0.020 |         |
| 60HF(R)   | 60          | 1.4             | 180  | 96.0       | 200-1200  | ≤12       | ≤0.6     |                | ≤2.0  | 0.020 |         |
| 70HF(R)   | 70          | 1.45            | 210  | 112.0      | 200-1600  | ≤12       | ≤0.5     |                | ≤2.0  | 0.020 |         |
| 85HF(R)   | 85          | 1.45            | 255  | 136.0      | 200-1600  | ≤12       | ≤0.4     |                | ≤2.0  | 0.020 | DO-8    |
| 100U(R)L  | 100         | 1.8             | 300  | 160.0      | 200-1600  | ≤15       | ≤0.3     |                | ≤12   | 0.120 |         |
| 150U(R)L  | 150         | 1.5             | 450  | 240.0      | 200-1600  | ≤15       | ≤0.3     |                | ≤12   | 0.120 |         |
| 100U(R)   | 100         | 1.8             | 300  | 160.0      | 200-1600  | ≤15       | ≤0.3     |                | ≤12   | 0.140 | DO-30   |
| 150U(R)   | 150         | 1.5             | 450  | 240.0      | 200-1600  | ≤15       | ≤0.3     |                | ≤12   | 0.140 |         |
| 200U(R)   | 200         | 1.3             | 600  | 320.0      | 200-1800  | ≤20       | ≤0.2     |                | ≤12   | 0.250 | DO-9    |
| 250U(R)   | 250         | 1.35            | 750  | 400.0      | 200-1800  | ≤20       | ≤0.15    |                | ≤25   | 0.250 |         |
| 300U(R)   | 300         | 1.35            | 900  | 480.0      | 200-1800  | ≤20       | ≤0.15    | ≤25            | 0.250 |       |         |
| SD400N(R) | 400         | 1.6             | 1200 | 640.0      | 200-2400  | ≤40       | ≤0.07    | ≤25            | 0.580 | DO-8  |         |
| SD500N(R) | 500         | 1.6             | 1500 | 800.0      | 200-2400  | ≤40       | ≤0.065   | ≤25            | 0.580 |       |         |
| SD600N(R) | 600         | 1.5             | 1800 | 960.0      | 200-2400  | ≤40       | ≤0.065   | ≤30            | 0.580 |       |         |



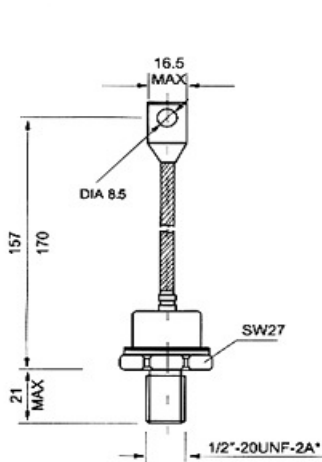
For metric devices: M5 × 0.8  
DO-4



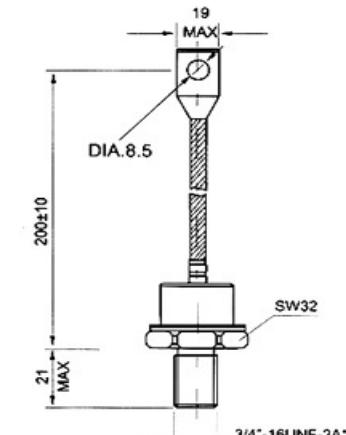
For metric devices: M6 × 1  
DO-5



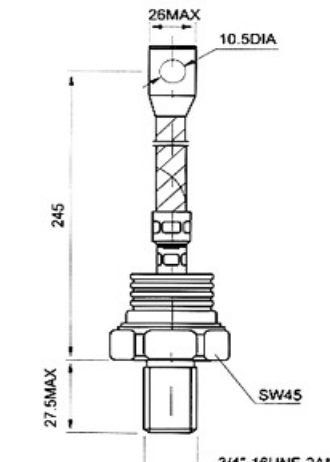
For metric device: M12 × 1.75  
DO-8



\*FOR METRIC DEVICE: M12 × 1.75  
DO-30



\*FOR METRIC DEVICE: M16 × 1.5/M20 × 1.5  
DO-9



\*FOR METRIC DEVICE: M20 × 1.5/M24 × 1.5  
B-8