

Diode type D22 are design for use in power rectifying circuits under normal operating conditions.

## KEY PARAMETERS

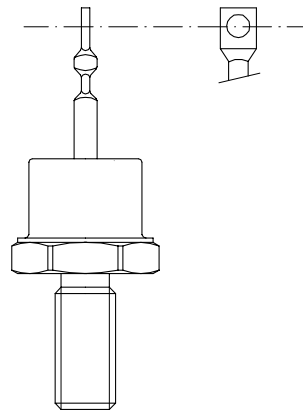
|             |                     |
|-------------|---------------------|
| $U_{RRM}$   | <b>up to 1400 V</b> |
| $I_{F(AV)}$ | <b>20 A</b>         |
| $I_{FSM}$   | <b>275 A</b>        |

## FEATURES

- all diffused design
- high current capabilities
- high surge current capabilities
- compact size and small weight
- tested according to IEC standards

## APPLICATION

- Medium Voltage Power Supplies
- Motor Control
- Battery Chargers
- Free Wheeling Diode
- Resistance Welding

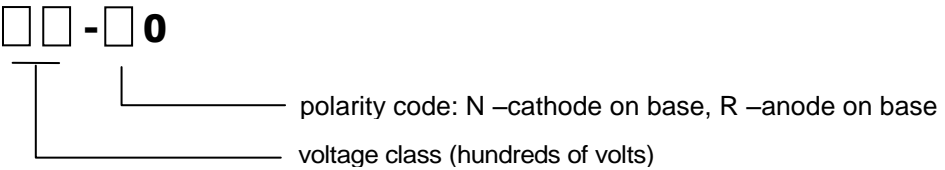


**Outline type code: DO-4**

See package details for further information

**ORDERING INFORMATION**

When ordering please refer to device code builder presented below.  
Please use the complete part number when ordering, quote or in any future correspondence relating to your order.

**D22-20-**   -  **0****ELECTRICAL PARAMETERS****Voltage ratings**

| Voltage class | $U_{RRM}$ | $I_{RRM}$ |
|---------------|-----------|-----------|
|               | V         | mA        |
| 01            | 100       | 8         |
| 02            | 200       |           |
| 04            | 400       |           |
| 06            | 600       |           |
| 08            | 800       |           |
| 10            | 1000      |           |
| 12            | 1200      |           |
| 14            | 1400      |           |

### Electrical properties

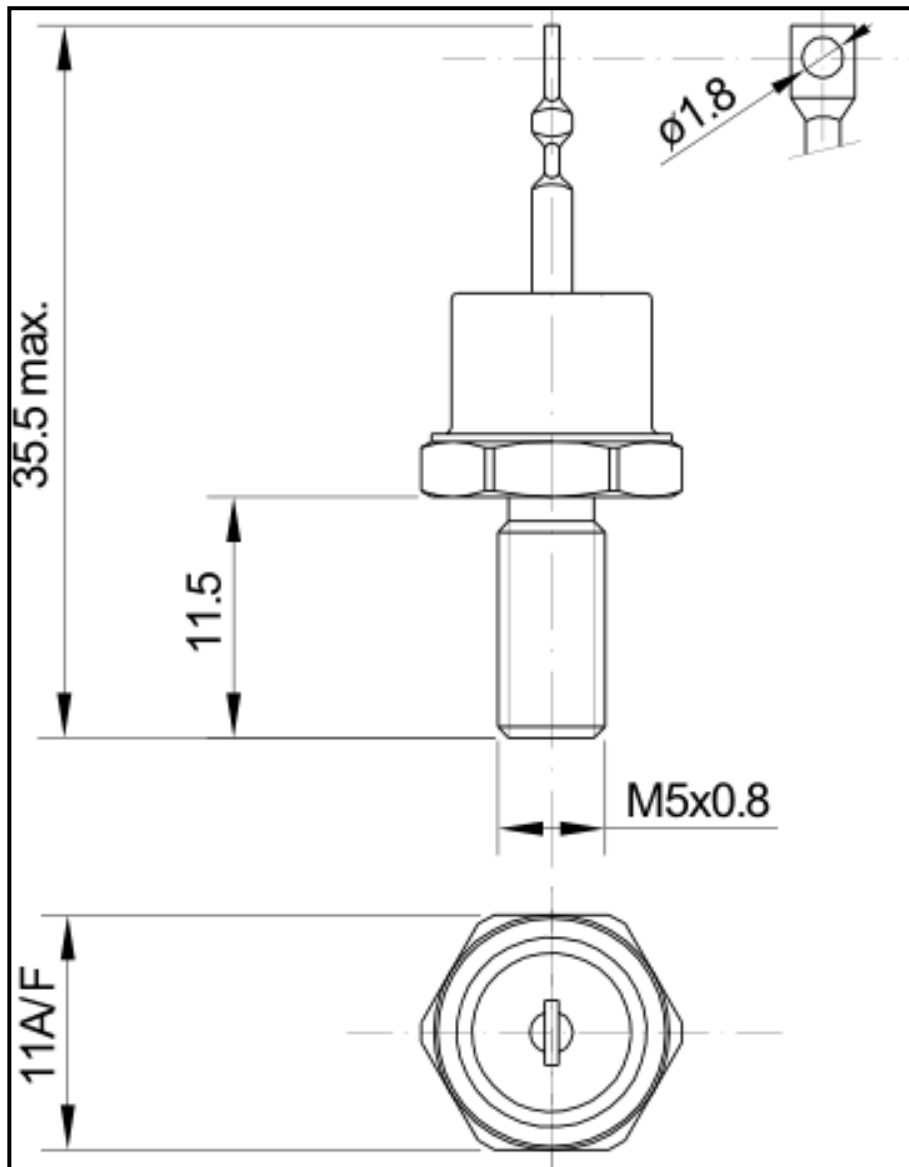
| Parameter                                     |              | Unit      | Test conditions              | Value |
|---|--------------|-----------|------------------------------|-------|
| Average forward current<br>@ case temperature | $I_{F(AV)}$  | A         |                              | 20    |
|   | $T_c$        | °C        |                              | 110   |
| RMS forward current                           | $I_{F(RMS)}$ | A         |                              | 31,4  |
| Surge current                                 | $I_{FSM}$    | A         | $t_p=10ms$                   | 275   |
| $I^2t$ – value                                | $I^2t$       | $kA^2s$   | $T_J=T_{JMAX}$               | 0,378 |
| Forward voltage drop max.                     | $U_{FM}$     | V         | $T_J=25^\circ C, I_{FM}=50A$ | 1,50  |
| Threshold voltage                             | $U_{F(T0)}$  | V         | $T_J=T_{Jmax}$               | 1,15  |
| Slope resistance                              | $r_F$        | $m\Omega$ |                              | 7     |

### Thermal properties

| Parameter                            |                           | Unit | Test conditions | Value      |
|--------------------------------------|---------------------------|------|-----------------|------------|
| Thermal resistance, junction to case | $R_{thJC}$                | °C/W | two sided, DC   | 1,50       |
| Operating junction temperature       | $T_{jmin} \dots T_{jmax}$ | °C   |                 | -25...+160 |
| Storage temperature                  | $T_{stg}$                 | °C   |                 | -25...+160 |

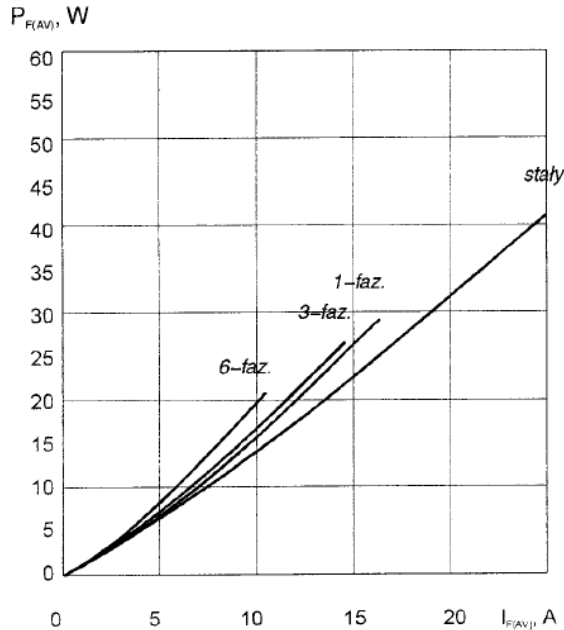
### Mechanical properties

| Parameter       |       | Unit | Value     |
|-----------------|-------|------|-----------|
| Mounting torque | $F_M$ | Nm   | 1,2 – 1,5 |
| Weight          | m     | g    | 7         |

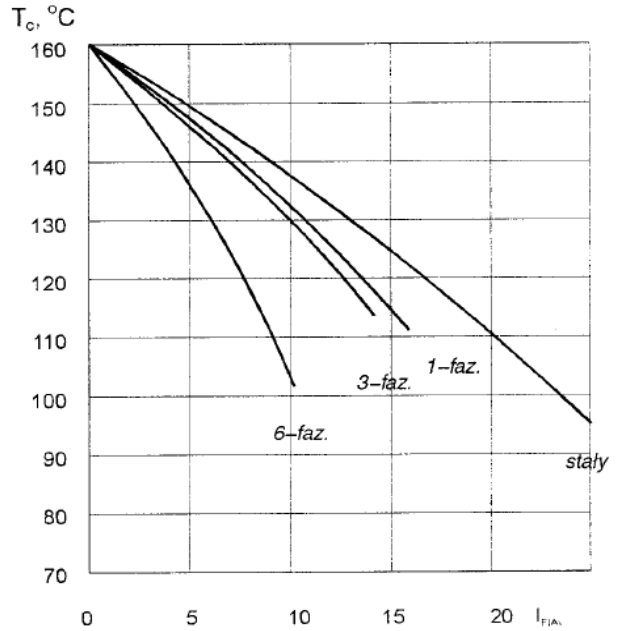


For further package information, please contact Sales & Marketing Department. All dimensions in mm, unless stated otherwise.  
Do not scale.

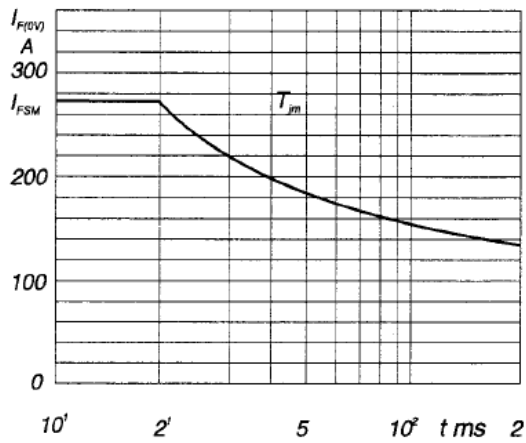
**CHARACTERISTICS**



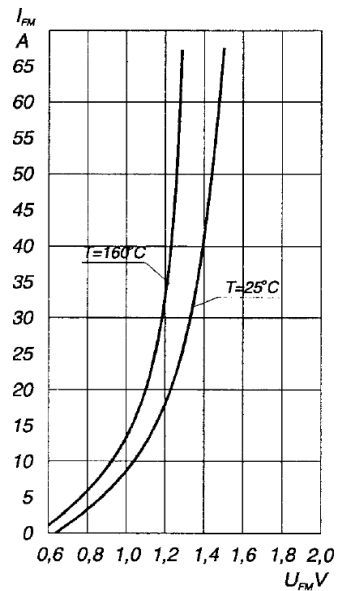
Maximum power dissipation vs. forward current. Sinusoidal waveform.



Maximum case temperature vs. forward current. Sinusoidal waveform.



Maximum overload characteristic.



Forward characteristic.