



TET ESTEL AS
ESTONIA

May
2015

Series
DF262-250
DF262-250X

Fast Recovery Stud-Mounted
Diodes
Type DF262-250,
DF262-250X

For use as high-power inverters,
fly-wheel diodes in DC choppers,
power supplies as high frequency rectifier

| | | | | | | | | | | | | |
|---|------------|-----|-----|-----|------|------|------|-------------------------|------|------|------|--|
| Maximum mean forward current | I_{FAV} | | | | | | | 250 A | | | | |
| Maximum repetitive peak reverse voltage | U_{RRM} | | | | | | | 600 ÷ 1600 V | | | | |
| Reverse recovery time | trr | | | | | | | 2,0; 2,5; 3,2 μs | | | | |
| U_{RRM}, V | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | |
| Voltage code | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| $T_{vj}, °C$ | - 60 ÷ 125 | | | | | | | | | | | |

MAXIMUM ALLOWABLE RATINGS

| Symbols and parameters | | Units | DF262-250 DF262-250X | Conditions |
|------------------------|-------------------------------------|---------|-------------------------|---|
| I_{FAV} | Mean forward current | A | 250 380 | $T_c=84°C$, $T_c=55°C$, 180° half-sine wave, 50 Hz |
| I_{FRMS} | RMS forward current | A | 392 | $T_c=84°C$ |
| I_{FSM} | Surge forward current | kA | 4,5 5,0 | $T_{vj}=125°C$ $T_{vj}= 25°C$ tp=10 ms |
| I^2t | Limiting load integral | kA^2s | 101 125 | $T_{vj}=125°C$ $T_{vj}= 25°C$ UR=0 |
| U_{RRM} | Repetitive peak reverse voltage | V | 600 ÷ 1600 | $T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz |
| U_{RSM} | Non-repetitive peak reverse voltage | V | 660 ÷ 1700 | $T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave tp=10 ms, Single pulse |
| T_{stg} | Storage temperature | °C | -60 ÷ 80 | |
| T_{vj} | Junction temperature | °C | -60 ÷ 125 | |

CHARACTERISTICS

| | | | | |
|-------------|---------------------------------|----|------|---------------------------------------|
| U_{FM} | Peak forward voltage | V | 1,6 | $T_{vj}=25°C$, $I_{FM}=3,14 I_{FAV}$ |
| $U_{F(TO)}$ | Threshold voltage | V | 0,97 | $T_{vj}=125°C$ |
| R_T | Forward slope resistance | mΩ | 0,6 | 1,57 $I_{FAV} < I_F < 4,71 I_{FAV}$ |
| I_{RRM} | Repetitive peak reverse current | mA | 35 | $T_{vj}=125°C$, $U_R = U_{RRM}$ |

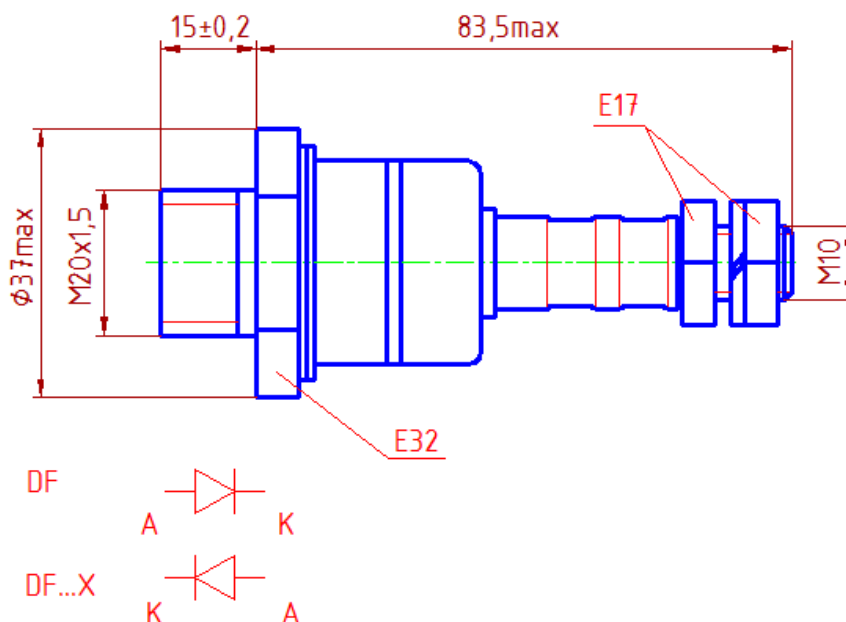
CHARACTERISTICS

| Symbols and parameters | | Units | DF262-250 DF262-250X | Conditions |
|------------------------|-------------------------------------|-------|-------------------------------------|--|
| trr | Reverse recovery time | μs | 2,0 ÷ 3,2 2,0 ÷ 2,5 1,6 ÷ 2,0 | T _{vj} =125°C, I _F =250A, U _R =100V di _R / dt = 50 A/μs di _R / dt = 100 A/μs di _R / dt = 200 A/μs |
| Q _{rr} | Recovered charge | μC | 60 ÷ 100 90 ÷ 140 120 ÷ 160 | T _{vj} =125°C, I _F =250A, U _R =100V di _R / dt = 50 A/μs di _R / dt = 100 A/μs di _R / dt = 200 A/μs |
| R _{thjc} | Thermal resistance junction to case | °C/W | 0,12 | Direct current |

ORDERING

| | DF | 262 | 250 | X | 14 | 4 |
|--|----|-----|-----|---|----|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |

1. Fast recovery diode.
2. Design version.
3. Mean forward current, A.
4. Reverse polarity (cathode stud mounted), without X-normal polarity.
5. Voltage code (14 = 1400 V).
6. Group of reverse recovery time (3 ≤ 3,2 μs; 4 ≤ 2,5 μs; 5 ≤ 2,0 μs).



Mounting of diodes with a rigid cathode gate should be carried through a flexible conductor.

Tightening torque: 24 ÷ 36 Nm (thread M20x1,5)

Tightening torque: 8 ÷ 12 Nm (thread M10)

Weight: 240 grams