



TET ESTEL AS
ESTONIA

April
2015

Series
DF261-250
DF261-250X

Fast Recovery Stud-Mounted
Diodes
Type DF261-250,
DF261-250X

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	DF261-250 DF261-250X	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	$T_{vj}=125°C$, $U_R = U_{RRM}$

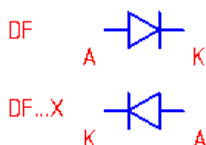
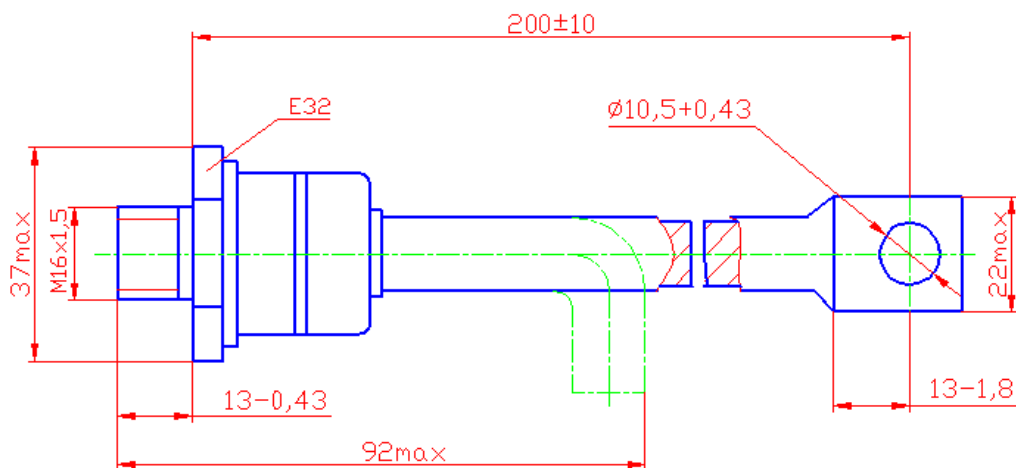
CHARACTERISTICS

Symbols and parameters		Units	DF261-250 DF261-250X	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	261	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).



Tightening torque: 24 ÷ 36 Nm
Weight: 260 grams