	TET ESTEL AS ESTONIA	**March 2015**

Series
DF271-400
DF271-400X

Fast Recovery Stud-Mounted Diodes Type DF271-400, DF271-400X

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

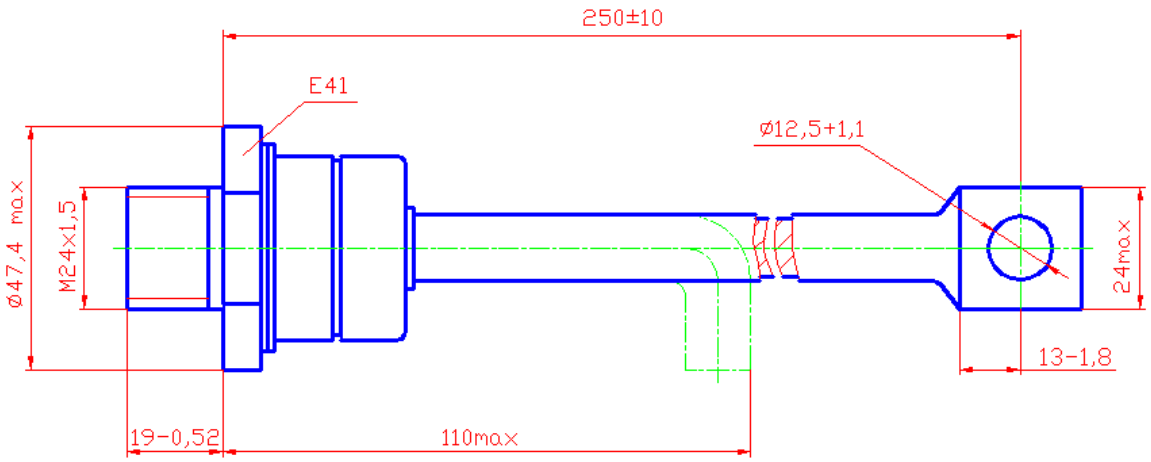
Maximum mean forward current				I_{FAV}	**400 A**	
Maximum repetitive peak reverse voltage				U_{RRM}	**1400 ÷2200 V**	
Reverse recovery time				**trr**	**3,2; 4,0; 5,0 µs**	
U_{RRM}, V	1400	1500	1600	1800	2000	2200
Voltage code	14	15	16	18	20	22
Tvj, °C	- 60 ÷ 125					

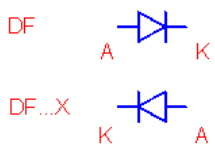
MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	DF271-400 DF271-400X	Conditions	
I_{FAV}	Mean forward current	A	400 324	Tc=80 °C, Tc=92 °C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	628	Tc=80°C	
I_{FSM}	Surge forward current	kA	8,0 8,8	Tvj=125°C Tvj= 25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	320 387	Tvj=125°C Tvj= 25°C	
U_{RRM}	Repetitive peak reverse voltage	V	1400÷2200	Tj мin≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1500÷2300	Tj мin≤Tvj≤Tjм 180° half-sine wave tp=10 ms, Single pulse	
Tstg	Storage temperature	°C	-60÷80		
Tvj	Junction temperature	°C	-60÷125		
CHARACTERISTICS					
U_{FM}	Peak forward voltage	V	1,85	Tvj=25°C, I_{FM}=3,14 I_{FAV}	
$U_{F(TO)}$	Threshold voltage	V	1,05	Tvj=125°C 1,57 I_{FAV}< I_F <4,71 I_{FAV}	
R_T	Forward slope resistance	mΩ	0,5		
I_{RRM}	Repetitive peak reverse current	mA	50	Tvj=125°C, U_R= U_{RRM}	

CHARACTERISTICS				
Symbols and parameters		Units	DF271-400 DF271-400X	Conditions
trr	Reverse recovery time	µs	3,2 ÷ 5,0 2,5 ÷ 4,0 2,0 ÷ 3,2	Tvj=125°C, IF=400A,UR=100V diR / dt = 50A/µs diR / dt =100A/µs diR / dt =200A/µs
Qrr	Recovered charge	µC	140 ÷ 230 190 ÷ 300 250 ÷ 380	Tvj=125°C, IF=400A,UR=100V diR / dt = 50A/µs diR / dt =100A/µs diR / dt =200A/µs
Rthjc	Thermal resistance junction to case	°C/W	0,07	Direct current

ORDERING						
	DF	**271**	**400**	**X**	**18**	**2**
	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 (18 = 1800 V)
6. Group of reverse recovery time (1 ≤ 5,0µs; 2 ≤ 4,0 µs; 3 ≤ 3,2 µs)





Tightening torque: 40 ÷ 60 Nm
Weight : 480 grams