THE DATASHEET OF

DF153-1250-15_26MM

	TET ESTEL AS ESTONIA	**September 2015**

Series
DF153-1250

Fast Recovery Press-Pack Diode
Type DF153-1250

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

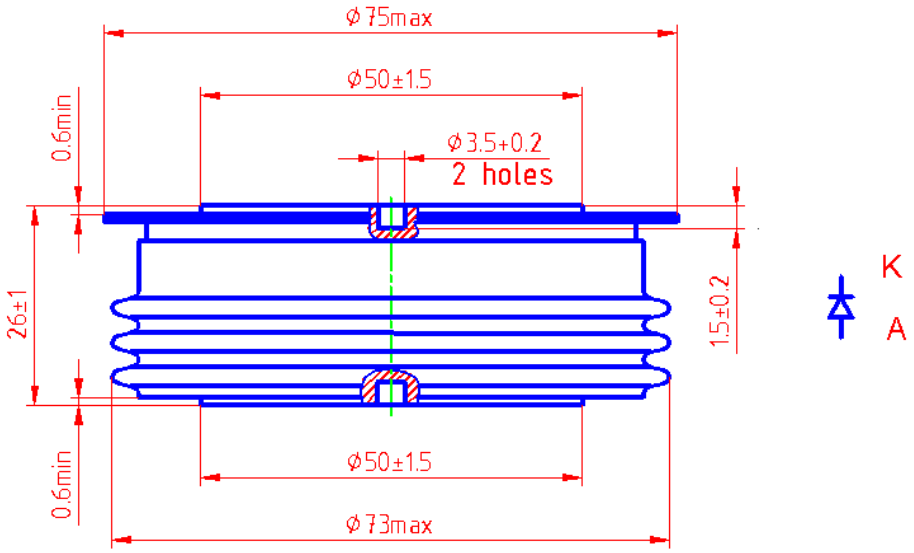
Maximum mean forward current					I_{FAV}	**1250 A**		
Maximum repetitive peak reverse voltage					U_{RRM}	**800 ÷1500 V**		
Reverse recovery time					**trr**	**3,2; 4,0; 5,0 µs**		
U_{RRM}, V	800	900	1000	1100	1200	1300	1400	1500
Voltage code	8	9	10	11	12	13	14	15
Tvj, °C	- 60 ÷ 125							

MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	DF153-1250	Conditions	
I_{FAV}	Mean forward current	A	1250 2105	Tc=90°C, Tc=55°C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	1960	Tc=90°C	
I_{FSM}	Surge forward current	kA	27 30	Tvj=125°C Tvj= 25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	3645 4500	Tvj=125°C Tvj= 25°C	
U_{RRM}	Repetitive peak reverse voltage	V	800÷1500	Tj мin≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	880÷1600	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	1,6	Tvj=25°C, I_{FM}=3,14 I_{FAV}	
$U_{F(TO)}$	Threshold voltage	V	1,1	Tvj=125°C 1,57 I_{FAV}< I_F <4,71 I_{FAV}	
R_T	Forward slope resistance	mΩ	0,11		
I_{RRM}	Repetitive peak reverse current	mA	75	Tvj=125°C, U_R= U_{RRM}	

CHARACTERISTICS				
Symbols and parameters		Units	DF153-1250	Conditions
trr	Reverse recovery time	μs	3,2÷5,0 2,5÷4,0 2,0÷3,2	Tvj=125°C, I_F=1250A,U_R=100V di_R / dt = 50A/μs di_R / dt =100A/μs di_R / dt =200A/μs
Qrr	Recovered charge	μC	140÷240 220÷340 300÷480	Tvj=125°C, I_F=1250A,U_R=100V di_R / dt = 50A/μs di_R / dt =100A/μs di_R / dt =200A/μs
Rthjc	Thermal resistance junction to case	°C/W	0,02	Direct current, double side cooled

ORDERING						
	DF	**153**	**1250**	**12**	**3**	
	1	**2**	**3**	**4**	**5**	

1. Fast recovery diode.
2. Design version.
3. Mean forward current, A.
4. Voltage code (12 = 1200 V).
5. Group of reverse recovery time (1 ≤ 5 μs; 2 ≤ 4 μs; 3 ≤ 3,2 μs).



Mounting force : 19 ÷ 28 kN
Weight : 580 grams

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