THE DATASHEET OF

DF252-160-16_D31MM

	TET ESTEL AS ESTONIA	**May 2015**

Series
DF252-160
DF252-160X

Fast Recovery Stud-Mounted Diodes Type DF252-160, DF252-160X

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

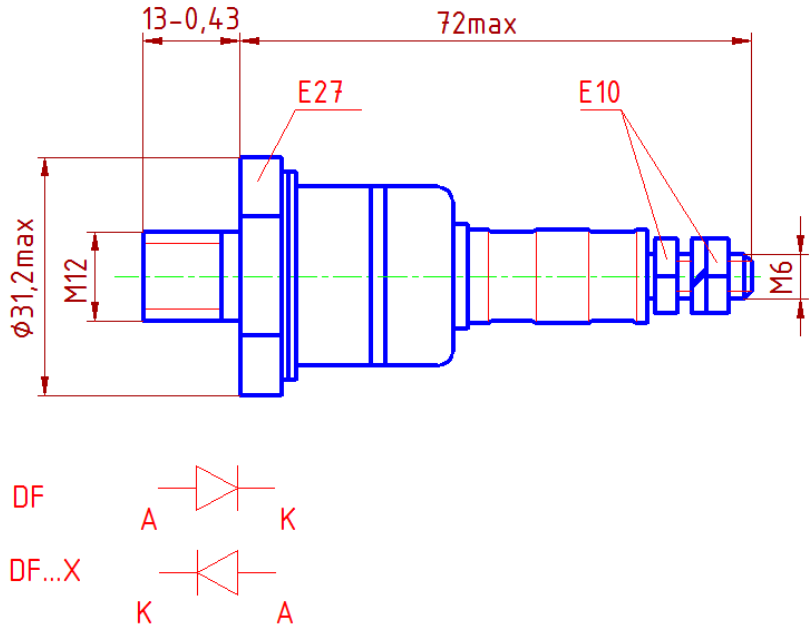
Maximum mean forward current						I_{FAV}		**160 A**			
Maximum repetitive peak reverse voltage						U_{RRM}		**600 ÷1600 V**			
Reverse recovery time						**trr**		**2,0; 2,5; 3,2 µs**			
U_{RRM}, V	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
Voltage code	6	7	8	9	10	11	12	13	14	15	16
Tvj, °C	- 60 ÷ 125										

MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	DF252-160 DF252-160X	Conditions	
I_{FAV}	Mean forward current	A	160 245	Tc=83 °C, Tc=55 °C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	250	Tc=83°C	
I_{FSM}	Surge forward current	kA	3,5 4,0	Tvj=125°C Tvj= 25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	61 80	Tvj=125°C Tvj= 25°C	
U_{RRM}	Repetitive peak reverse voltage	V	600÷1600	Tj мin≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	660÷1700	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	1,7	Tvj=25°C, I_{FM}=3,14 I_{FAV}	
$U_{F(TO)}$	Threshold voltage	V	0,97	Tvj=125°C 1,57 I_{FAV}< I_F <4,71 I_{FAV}	
R_T	Forward slope resistance	mΩ	1,0		
I_{RRM}	Repetitive peak reverse current	mA	30	Tvj=125°C, U_R= U_{RRM}	

CHARACTERISTICS				
Symbols and parameters		Units	DF252-160 DF252-160X	Conditions
trr	Reverse recovery time	µs	2,0 ÷ 3,2 1,6 ÷ 2,5 1,25 ÷ 2,0	Tvj=125°C, I_F=160A,U_R=100V di_R / dt = 50A/µs di_R / dt =100A/µs di_R / dt =200A/µs
Qrr	Recovered charge	µC	40 ÷ 80 60 ÷ 100 70 ÷ 120	Tvj=125°C, I_F=160A,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	0,18	Direct current

ORDERING						
	DF	**252**	**160**	**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: 12 ÷ 18 Nm (thread M12)
Tightening torque: 1,5 ÷ 1,7 Nm (thread M6)

Weight: 140 grams

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