



**THE DATASHEET OF
DF251-200-16_D31MM**





TET ESTEL AS
ESTONIA

April
2015

Series
DF251-200
DF251-200X

Fast Recovery Stud-Mounted
Diodes
Type DF251-200,
DF251-200X

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

Maximum mean forward current	I_{FAV}											200 A
Maximum repetitive peak reverse voltage	U_{RRM}											600 ÷ 1600 V
Reverse recovery time	trr											2,5; 3,2; 4,0 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	DF251-200 DF251-200X	Conditions
I_{FAV}	Mean forward current	A	200 270	$T_c=78 °C$, $T_c=55 °C$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	320	$T_c=78 °C$
I_{FSM}	Surge forward current	kA	4,0 4,5	$T_{vj}=125 °C$ $T_{vj}= 25 °C$ tp=10 ms
I^2t	Limiting load integral	kA ² s	80 101	$T_{vj}=125 °C$ $T_{vj}= 25 °C$ $U_R=0$
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	1,8	$T_{vj}=25 °C$, $I_{FM}=3,14 I_{FAV}$
$U_{F(TO)}$	Threshold voltage	V	1,02	$T_{vj}=125 °C$
R_T	Forward slope resistance	mΩ	0,88	1,57 $I_{FAV} < I_F < 4,71 I_{FAV}$
I_{RRM}	Repetitive peak reverse current	mA	30	$T_{vj}=125 °C$, $U_R = U_{RRM}$

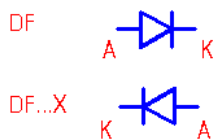
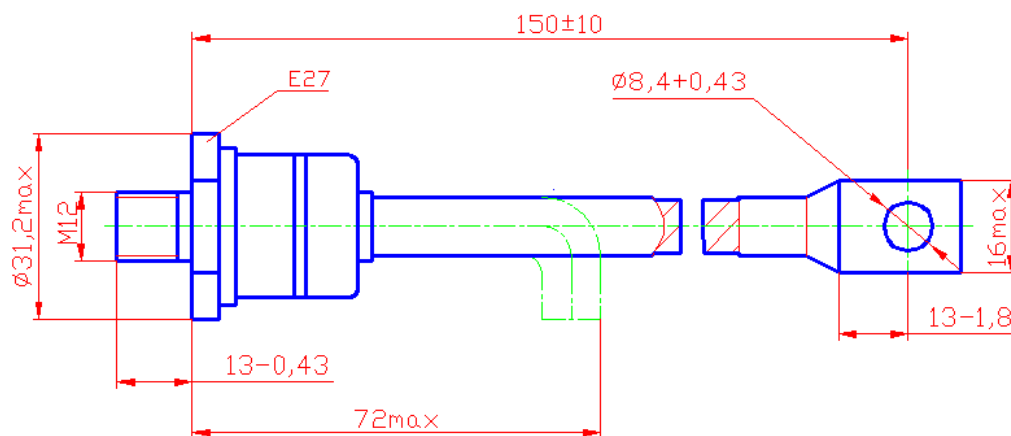
CHARACTERISTICS

Symbols and parameters		Units	DF251-200	Conditions
			DF251-200X	
trr	Reverse recovery time	μs	2,5 ÷ 4,0 2,0 ÷ 3,2 1,6 ÷ 2,5	Tvj=125°C, If=200A, Ur=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Qrr	Recovered charge	μC	60 ÷ 100 80 ÷ 130 100 ÷ 150	Tvj=125°C, If=200A, Ur=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Rthjc	Thermal resistance junction to case	°C/W	0,16	Direct current

ORDERING

	DF	251	200	X	14	3
	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 (2 ≤ 4,0 μs; 3 ≤ 3,2 μs; 4 ≤ 2,5 μs).



Tightening torque: 12 ÷ 18 Nm
Weight : 150 grams

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