



TET ESTEL AS
ESTONIA

December
2016

Series
DF243-800

Fast Recovery Press-Pack
Diode
Type DF243-800

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

Maximum mean forward current					I_{FAV}	800 A		
Maximum repetitive peak reverse voltage					U_{RRM}	1400 ÷ 2600 V		
Reverse recovery time					trr	3,2; 4,0; 5,0 μs		
U_{RRM}, V	1400	1500	1600	1800	2000	2200	2400	2600
Voltage code	14	15	16	18	20	22	24	26
$T_{vj}, °C$	- 60 ÷ 125							

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	DF243-800	Conditions	
I_{FAV}	Mean forward current	A	800 1000	$T_c=74°C$, $T_c=55°C$, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	1255	$T_c=74°C$	
I_{FSM}	Surge forward current	kA	14 15,5	$T_{vj}=125°C$ $T_{vj}=25°C$	tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA ² s	980 1201	$T_{vj}=125°C$ $T_{vj}=25°C$	
U_{RRM}	Repetitive peak reverse voltage	V	1400÷2600	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1500÷2700	$T_j \min \leq T_{vj} \leq T_{jM}$ 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	2,4	$T_{vj}=25°C$, $I_{FM}=3,14 I_{FAV}$
$U_{F(TO)}$	Threshold voltage	V	1,4	$T_{vj}=125°C$ $1,57 I_{FAV} < I_F < 4,71 I_{FAV}$
R_T	Forward slope resistance	mΩ	0,48	
I_{RRM}	Repetitive peak reverse current	mA	50	$T_{vj}=125°C$, $U_R = U_{RRM}$

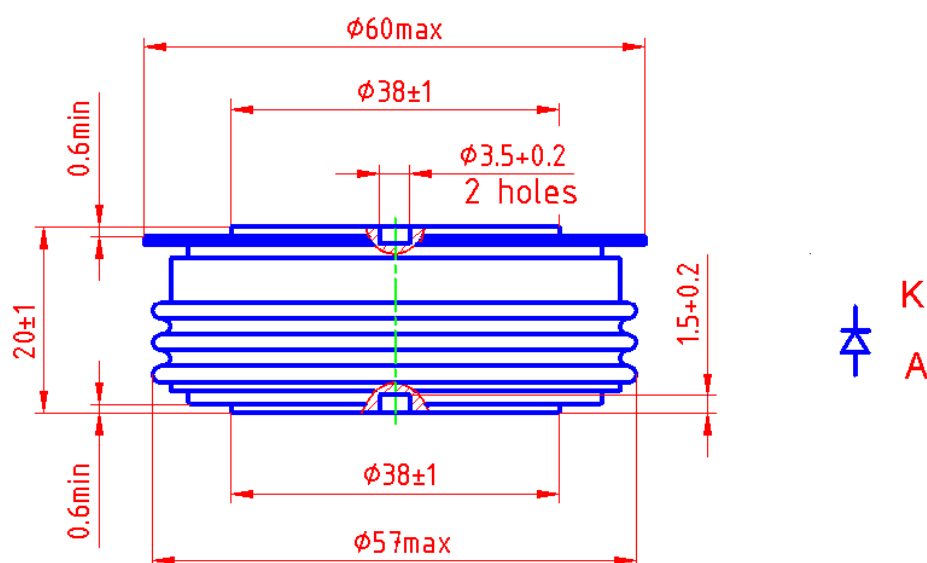
CHARACTERISTICS

Symbols and parameters		Units	DF243-800	Conditions
trr	Reverse recovery time	μs	3,2 ÷ 5,0 2,5 ÷ 4,0 2,0 ÷ 3,2	Tvj=125°C, IF=800A, UR=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Qrr	Recovered charge	μC	140 ÷ 220 190 ÷ 300 280 ÷ 440	Tvj=125°C, IF=800A, UR=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Rthjc	Thermal resistance junction to case	°C/W	0,027	Direct current, double side cooled

ORDERING

DF	243	800	22	2	
1	2	3	4	5	

1. Fast recovery diode
2. Design version
3. Mean forward current, A
4. Voltage code (22 = 2200 V)
5. Group of reverse recovery time (1 ≤ 5,0 μs; 2 ≤ 4,0 μs; 3 ≤ 3,2 μs)



Mounting force : 13 ÷ 19 kN
Weight : 260 grams