



TET ESTEL AS
ESTONIA

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Series
DF343-630

Fast Recovery Press-Pack
Diode
Type DF343-630

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

Maximum mean forward current	I_{FAV}			630 A
Maximum repetitive peak reverse voltage	U_{RRM}			2400 ÷ 3000 V
Reverse recovery time	trr			4,0; 5,0; 6,3 μs
U_{RRM}, V	2400	2600	2800	3000
Voltage code	24	26	28	30
$T_{vj}, °C$	- 60 ÷ 125			

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	DF343-630	Conditions
I_{FAV}	Mean forward current	A	630 870	$T_c=80 °C,$ $T_c=55 °C,$ 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	989	$T_c=80 °C$
I_{FSM}	Surge forward current	kA	12 13,5	$T_{vj}=125 °C$ $T_{vj}= 25 °C$ tp=10 ms
I^2t	Limiting load integral	kA^2s	720 911	$T_{vj}=125 °C$ $T_{vj}= 25 °C$ UR=0
U_{RRM}	Repetitive peak reverse voltage	V	2400÷3000	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	2500÷3100	$T_j \min \leq T_{vj} \leq T_{jM}$ 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	1,5	$T_{vj}=125 °C$ $1,57 I_{FAV} < I_F < 4,71 I_{FAV}$
R_T	Forward slope resistance	mΩ	0,55	
I_{RRM}	Repetitive peak reverse current	mA	50	$T_{vj}=125 °C,$ $U_R = U_{RRM}$

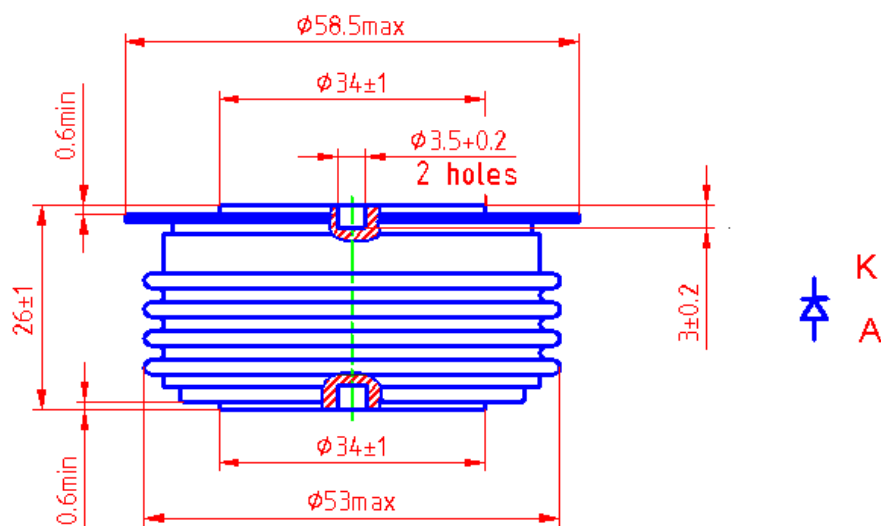
CHARACTERISTICS

Symbols and parameters		Units	DF343-630	Conditions
trr	Reverse recovery time	μs	4,0 ÷ 6,3 3,2 ÷ 5,0 2,5 ÷ 4,0	Tvj=125°C, If=630A, Ur=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Qrr	Recovered charge	μC	170 ÷ 270 240 ÷ 370 350 ÷ 550	Tvj=125°C, If=630A, Ur=100V diR / dt = 50A/μs diR / dt = 100A/μs diR / dt = 200A/μs
Rthjc	Thermal resistance junction to case	°C/W	0,03	Direct current, double side cooled

ORDERING

	DF	343	630	30	1	
	1	2	3	4	5	

1. Fast recovery diode.
2. Design version.
3. Mean forward current, A.
4. Voltage code (30 = 3000 V).
5. Group of reverse recovery time (C4 ≤ 6,3 μs; 1 ≤ 5 μs; 2 ≤ 4 μs).



Mounting force : 13 ÷ 19 kN
Weight : 320 grams