



**TET ESTEL AS**  
ESTONIA

**July**  
**2013**

**Series**  
**DF273-2500**

**Fast Recovery Press-Pack**  
**Diode**  
**Type DF273-2500**

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

Maximum mean forward current	$I_{FAV}$				<b>2500 A</b>		
Maximum repetitive peak reverse voltage	$U_{RRM}$				<b>1400 ÷ 2600 V</b>		
Reverse recovery time	<b>trr</b>				<b>6,3; 8,0; 10 μs</b>		
$U_{RRM}$ , V	1400	1600	1800	2000	2200	2400	2600
Voltage code	14	16	18	20	22	24	26
$T_{vj}$ , °C	- 60 ÷ 125						

**MAXIMUM ALLOWABLE RATINGS**

Symbols and parameters		Units	DF273-2500	Conditions
$I_{FAV}$	Mean forward current	A	2500 3575	$T_c=80^\circ\text{C}$ , $T_c=55^\circ\text{C}$ , 180° half-sine wave, 50 Hz
$I_{FRMS}$	RMS forward current	A	3925	$T_c=80^\circ\text{C}$
$I_{FSM}$	Surge forward current	kA	45 50	$T_{vj}=125^\circ\text{C}$ $T_{vj}=25^\circ\text{C}$ tp=10 ms $U_R=0$
$I^2t$	Limiting load integral	kA <sup>2</sup> s	10125 12500	$T_{vj}=125^\circ\text{C}$ $T_{vj}=25^\circ\text{C}$
$U_{RRM}$	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	1,8	$T_{vj}=25^\circ\text{C}$ , $I_{FM}=3,14 I_{FAV}$
$U_{F(TO)}$	Threshold voltage	V	1,25	$T_{vj}=125^\circ\text{C}$ 1,57 $I_{FAV} < I_F < 4,71 I_{FAV}$
$R_T$	Forward slope resistance	mΩ	0,08	
$I_{RRM}$	Repetitive peak reverse current	mA	150	$T_{vj}=125^\circ\text{C}$ , $U_R = U_{RRM}$

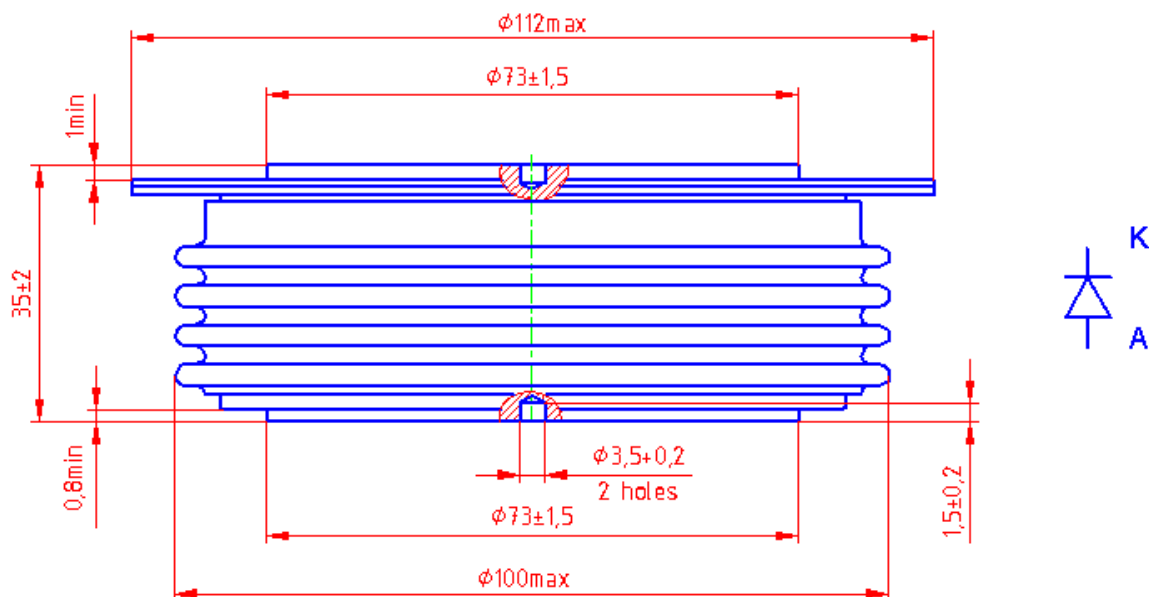
### CHARACTERISTICS

Symbols and parameters		Units	DF273-2500	Conditions
trr	Reverse recovery time	$\mu\text{s}$	6,3 ÷ 10 5,0 ÷ 8,0 4,0 ÷ 6,3	$T_{vj}=125^{\circ}\text{C}$ , $I_F=2500\text{A}$ , $U_R=100\text{V}$ $di_R / dt = 50\text{A}/\mu\text{s}$ $di_R / dt = 100\text{A}/\mu\text{s}$ $di_R / dt = 200\text{A}/\mu\text{s}$
Qrr	Recovered charge	$\mu\text{C}$	500÷800 700÷1100 900÷1600	$T_{vj}=125^{\circ}\text{C}$ , $I_F=2500\text{A}$ , $U_R=100\text{V}$ $di_R / dt = 50\text{A}/\mu\text{s}$ $di_R / dt = 100\text{A}/\mu\text{s}$ $di_R / dt = 200\text{A}/\mu\text{s}$
Rthjc	Thermal resistance junction to case	$^{\circ}\text{C}/\text{W}$	0,01	Direct current, double side cooled

### ORDERING

	DF	273	2500	24	B4	
	1	2	3	4	5	

1. Fast recovery diode
2. Design version
3. Mean forward current, A
4. Voltage code (24 = 2400 V)
5. Group of reverse recovery time ( $A4 \leq 10 \mu\text{s}$ ;  $B4 \leq 8,0 \mu\text{s}$ ;  $C4 \leq 6,3 \mu\text{s}$ )



Mounting force : 36 ÷ 46 kN

Weight : 1700 grams