



TET ESTEL AS
ESTONIA

April
2016

Series
D153-2500

Rectifier Press-Pack
Diode
Type D153-2500

Designed for rectifiers and industrial applications

Maximum mean forward current	I_{FAV}						2500 A	
Maximum repetitive peak reverse voltage	U_{RRM}						400 ÷ 1000 V	
Reverse recovery time	t_{rr} (typ)						20 μs	
U_{RRM} , V	400	500	600	700	800	900	1000	
Voltage code	4	5	6	7	8	9	10	
T_{vj} , °C	- 60 ÷ 175							

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D153-2500	Conditions
I_{FAV}	Mean forward current	A	2500 4445	$T_c=118\text{ }^\circ\text{C}$, $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	3925	$T_c=118\text{ }^\circ\text{C}$
I_{FSM}	Surge forward current	kA	37 40	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$ tp=10 ms
I^2t	Limiting load integral	kA ² s	6845 8000	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$ $U_R=0$
U_{RRM}	Repetitive peak reverse voltage	V	400÷1000	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	500÷1100	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 180° half-sine wave tp=10 ms, Single pulse
T_{stg}	Storage temperature	°C	-60÷80	
T_{vj}	Junction temperature	°C	-60÷175	

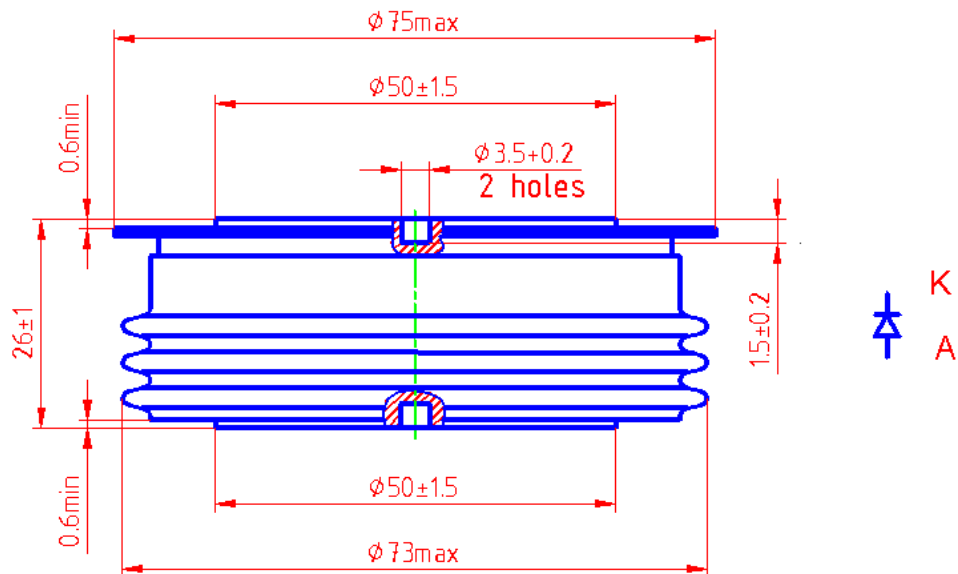
CHARACTERISTICS

U_{FM}	Peak forward voltage	V	1,5 1,45	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM} = 3,14 I_{TAV}$ $I_{TM} = 6280\text{ A}$
$U_{F(TO)}$	Threshold voltage	V	0,8	$T_{vj}=175\text{ }^\circ\text{C}$ $1,57 I_{TAV} < I_T < 4,71 I_{TAV}$
R_T	Forward slope resistance	m Ω	0,05	
I_{RRM}	Repetitive peak reverse current	mA	75	$T_{vj}=175\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

CHARACTERISTICS				
Symbols and parameters		Units	D153-2500	Conditions
Qrr	Recovered charge (typ)	μC	1400	$T_{vj}=175^{\circ}\text{C}$ $I_F=2500\text{ A}$ $di_R/dt =10\text{ A}/\mu\text{s}$ $U_R=100\text{V}$
trr	Reverse recovery time (typ)	μs	20	
Irrm	Peak reverse recovery current (typ)	A	140	
Rthjc	Thermal resistance junction to case	$^{\circ}\text{C}/\text{W}$	0,02	Direct current, double side cooled

ORDERING					
	D	153	2500	10	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (10=1000 V)



Mounting force : 19 ÷ 28 kN
Weight : 580 grams