



TET ESTEL AS
ESTONIA

February
2016

Series
D153-2000

Rectifier Press-Pack
Diode
Type D153-2000

Designed for rectifiers and industrial applications

Maximum mean forward current							I_{FAV}	2000 A			
Maximum repetitive peak reverse voltage							U_{RRM}	800 ÷ 1800 V			
Reverse recovery time							t_{rr} (typ)	40 μs			
U_{RRM} , V	800	900	1000	1100	1200	1300	1400	1500	1600	1800	
Voltage code	8	9	10	11	12	13	14	15	16	18	
T_{vj} , °C	- 60 ÷ 175										

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D153-2000	Conditions
I_{FAV}	Mean forward current	A	2000 3290	$T_c=117\text{ }^\circ\text{C}$, $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	3140	$T_c=117\text{ }^\circ\text{C}$
I_{FSM}	Surge forward current	kA	36 40	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$
I^2t	Limiting load integral	kA^2s	6480 8000	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$
U_{RRM}	Repetitive peak reverse voltage	V	800÷1800	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	900÷1900	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave $t_p=10\text{ ms}$, Single pulse
T_{stg}	Storage temperature	°C	-60÷80	
T_{vj}	Junction temperature	°C	-60÷175	

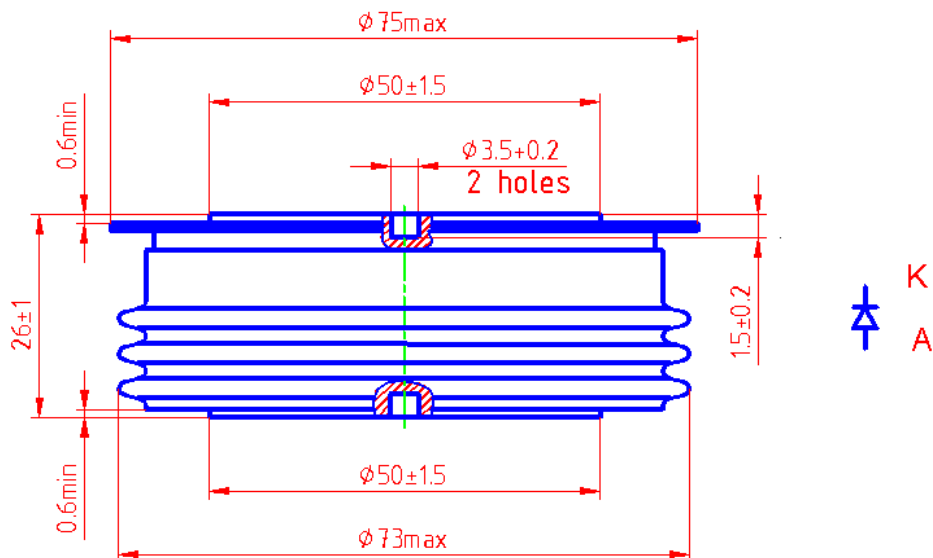
CHARACTERISTICS

U_{FM}	Peak forward voltage	V	1,7	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	Threshold voltage	V	0,83	$T_{vj}=175\text{ }^\circ\text{C}$ $1,57 I_{TAV} < I_T < 4,71 I_{TAV}$
R_T	Forward slope resistance	$\text{m}\Omega$	0,12	
I_{RRM}	Repetitive peak reverse current	mA	90	$T_{vj}=175\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

CHARACTERISTICS				
Symbols and parameters		Units	D153-2000	Conditions
Q _{rr}	Recovered charge (typ)	μC	3500	T _{vj} =175°C I _F =2000 A di _R /dt =10 A/μs U _R =100V
t _{rr}	Reverse recovery time (typ)	μs	40	
I _{rrm}	Peak reverse recovery current (typ)	A	175	
R _{thjc}	Thermal resistance junction to case	°C/W	0,02	Direct current, double side cooled

ORDERING					
	D	153	2000	18	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (18=1800 V)



Mounting force : 19 ÷ 28 kN
Weight : 580 grams