	TET ESTEL AS ESTONIA	**January 2016**

Series
D253-1600

Rectifier Press-Pack Diode Type D253-1600

Designed for rectifiers and industrial applications

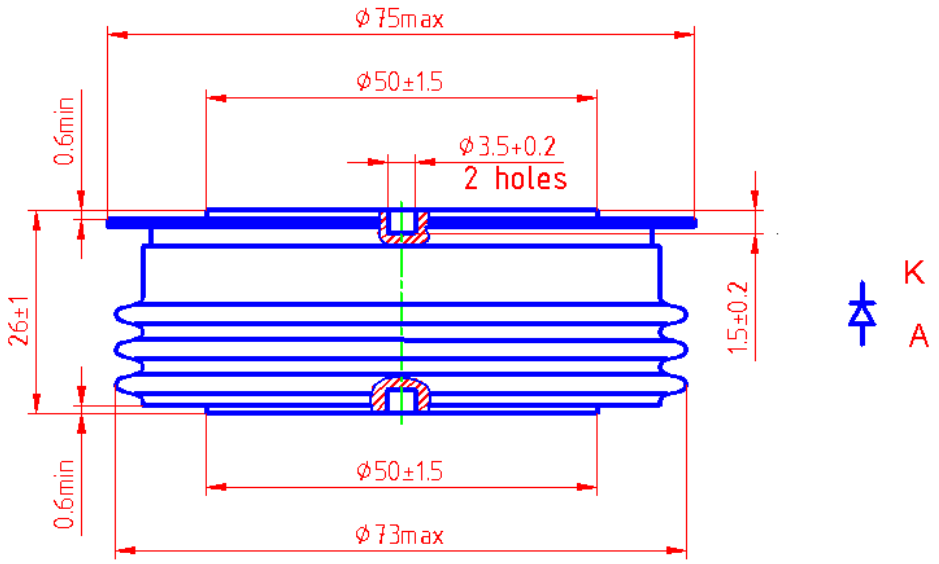
Maximum mean forward current				I_{FAV}		**1600 A**		
Maximum repetitive peak reverse voltage				U_{RRM}		**1400 ÷2600 V**		
Reverse recovery time				**trr** (typ)		**40 µs**		
U_{RRM}, V	1400	1500	1600	1800	2000	2200	2400	2600
Voltage code	14	15	16	18	20	22	24	26
Tvj, °C	- 60 ÷ 175							

MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	D253-1600	Conditions	
I_{FAV}	Mean forward current	A	1600 2400 3290	Tc=130 °C, Tc=100 °C, Tc=55 °C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	2512	Tc=130 °C	
I_{FSM}	Surge forward current	kA	35 38	Tvj=175°C Tvj=25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	6125 7220	Tvj=175°C Tvj=25°C	
U_{RRM}	Repetitive peak reverse voltage	V	1400÷2600	Tj min≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1500÷2700	Tj min≤Tvj≤Tjм 180° half-sine wave tp=10 ms, Single pulse	
Tstg	Storage temperature	°C	-60÷80		
Tvj	Junction temperature	°C	-60÷175		
CHARACTERISTICS					
U_{FM}	Peak forward voltage	V	1,5	Tvj=25°C, I_{TM}=3,14 I_{TAV}	
$U_{F(TO)}$	Threshold voltage	V	0,83	Tvj=175°C 1,57 I_{TAV}< I_T <4,71 I_{TAV}	
R_T	Forward slope resistance	mΩ	0,12		
I_{RRM}	Repetitive peak reverse current	mA	90	Tvj=175°C, U_R= U_{RRM}	

CHARACTERISTICS				
Symbols and parameters		Units	D253-1600	Conditions
Qrr	Recovered charge (typ)	µC	3500	Tvj=175°C I_F=1600 A di_R/dt =10 A/µs U_R=100V
trr	Reverse recovery time (typ)	µs	40	
Irrм	Peak reverse recovery current (typ)	A	175	
Rthjc	Thermal resistance junction to case	°C/W	0,02	Direct current, double side cooled

ORDERING					
	D	**253**	**1600**	**22**	
	1	**2**	**3**	**4**	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (22=2200 V)



Mounting force : 19 ÷ 28 kN
Weight : 580 grams