



TET ESTEL AS
ESTONIA

June
2013

Series
D253-2000

Rectifier Press-Pack
Diode
Type D253-2000

Designed for rectifiers and industrial applications

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

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D253-2000	Conditions	
I_{FAV}	Mean forward current	A	2000 2390 3310	$T_c=115\text{ }^\circ\text{C}$, $T_c=100\text{ }^\circ\text{C}$, $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	3140	$T_c=115\text{ }^\circ\text{C}$	
I_{FSM}	Surge forward current	kA	36 40	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$	tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA ² s	6480 8000	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$	
U_{RRM}	Repetitive peak reverse voltage	V	1400÷2400	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1500÷2500	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 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	1,6	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	Threshold voltage	V	0,93	$T_{vj}=175\text{ }^\circ\text{C}$ $1,57 I_{TAV} < I_T < 4,71 I_{TAV}$
R_T	Forward slope resistance	m Ω	0,11	
I_{RRM}	Repetitive peak reverse current	mA	90	$T_{vj}=175\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

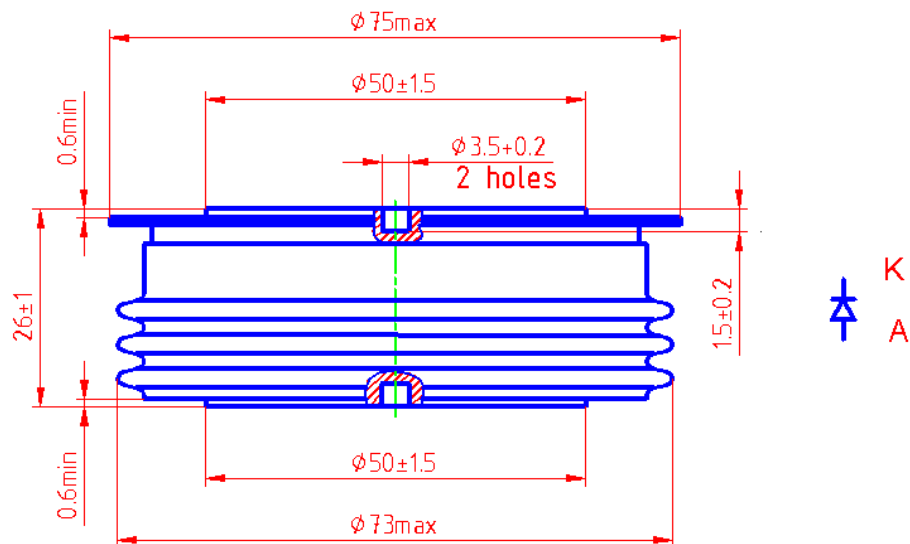
CHARACTERISTICS

Symbols and parameters		Units	D253-2000	Conditions
Q _{rr}	Recovered charge (typ)	μC	3600	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	180	
R _{thjc}	Thermal resistance junction to case	°C/W	0,02	Direct current, double side cooled

ORDERING

	D	253	2000	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