



TET ESTEL AS
ESTONIA

January
2016

Series
D243-1000

Rectifier Press-Pack
Diode
Type D243-1000

Designed for rectifiers and industrial applications

Maximum mean forward current					I_{FAV}	1000 A	
Maximum repetitive peak reverse voltage					U_{RRM}	1600 ÷ 2800 V	
Reverse recovery time					trr (typ)	35 μs	
U_{RRM} , V	1600	1800	2000	2200	2400	2600	2800
Voltage code	16	18	20	22	24	26	28
T_{vj} , °C	- 60 ÷ 175						

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D243-1000	Conditions	
I_{FAV}	Mean forward current	A	1000 1870	$T_c=127\text{ }^\circ\text{C}$ $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	1570	$T_c=127\text{ }^\circ\text{C}$	
I_{FSM}	Surge forward current	kA	17 19	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$	tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA^2s	1445 1805	$T_{vj}=175\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$	
U_{RRM}	Repetitive peak reverse voltage	V	1600÷2800	$T_j \text{ min} \leq T_{vj} \leq T_{jm}$ 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1700÷2900	$T_j \text{ min} \leq T_{vj} \leq T_{jm}$ 180° half-sine wave tp=10 ms, Single pulse	
T_{stg}	Storage temperature	°C	-60÷80		
T_{vj}	Junction temperature	°C	-60÷175		

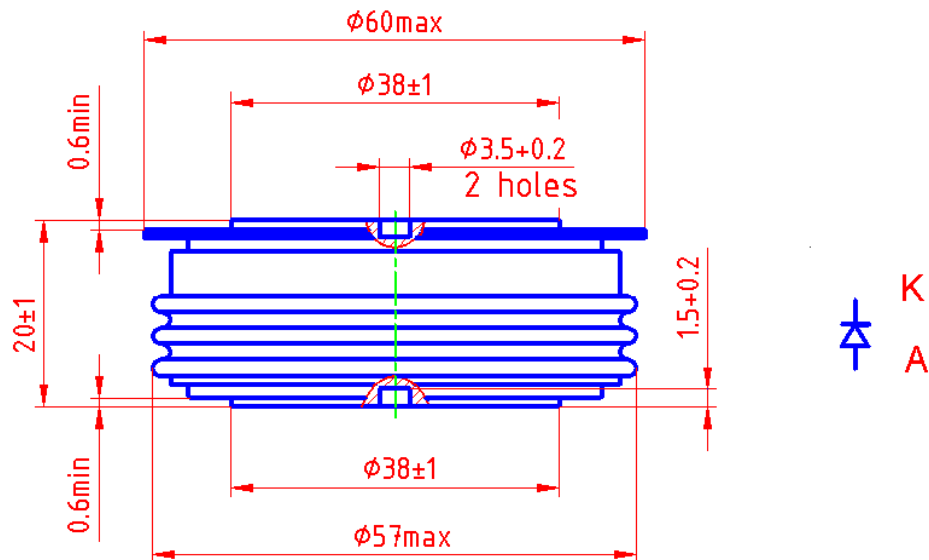
CHARACTERISTICS

U_{FM}	Peak forward voltage	V	1,7	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	Threshold voltage	V	0,9	$T_{vj}=175\text{ }^\circ\text{C}$ $1,57 I_{TAV} < I_T < 4,71 I_{TAV}$
R_T	Forward slope resistance	$\text{m}\Omega$	0,27	
I_{RRM}	Repetitive peak reverse current	mA	50	$T_{vj}=175\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

CHARACTERISTICS				
Symbols and parameters		Units	D243-1000	Conditions
Qrr	Recovered charge (typ)	μC	2700	$T_{vj}=175^{\circ}\text{C}$ $I_F=1000\text{ A}$ $di_R/dt =10\text{ A}/\mu\text{s}$ $U_R=100\text{V}$
trr	Reverse recovery time (typ)	μs	35	
Irrm	Peak reverse recovery current (typ)	A	155	
Rthjc	Thermal resistance junction to case	$^{\circ}\text{C}/\text{W}$	0,03	Direct current, double side cooled

ORDERING					
	D	243	1000	24	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (24=2400 V)



Mounting force : 13 ÷ 19 kN
 Weight : 260 grams