



TET ESTEL AS
ESTONIA

December
2015

Series
D443-800

Rectifier Press-Pack
Diode
Type D443-800

Designed for rectifiers and industrial applications

Maximum mean forward current	I_{FAV}		800 A			
Maximum repetitive peak reverse voltage	U_{RRM}		3400 ÷ 4400 V			
Reverse recovery time	t_{rr} (typ)		40 μs			
U_{RRM} , V	3400	3600	3800	4000	4200	4400
Voltage code	34	36	38	40	42	44
T_{vj} , °C	- 60 ÷ 150					

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D443-800	Conditions
I_{FAV}	Mean forward current	A	800 1430	$T_c=110\text{ }^\circ\text{C}$, $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	1250	$T_c=110\text{ }^\circ\text{C}$
I_{FSM}	Surge forward current	kA	13,0 14,0	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$ $t_p=10\text{ ms}$ $U_R=0$
I^2t	Limiting load integral	kA^2s	845 980	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$
U_{RRM}	Repetitive peak reverse voltage	V	3400÷4400	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	3500÷4500	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave $t_p=10\text{ ms}$, Single pulse
T_{stg}	Storage temperature	°C	-60÷80	
T_{vj}	Junction temperature	°C	-60÷150	

CHARACTERISTICS

U_{FM}	Peak forward voltage	V	1,8	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	Threshold voltage	V	0,8	$T_{vj}=150\text{ }^\circ\text{C}$ $1,57 I_{TAV} < I_T < 4,71 I_{TAV}$
R_T	Forward slope resistance	$\text{m}\Omega$	0,4	
I_{RRM}	Repetitive peak reverse current	mA	50	$T_{vj}=150\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

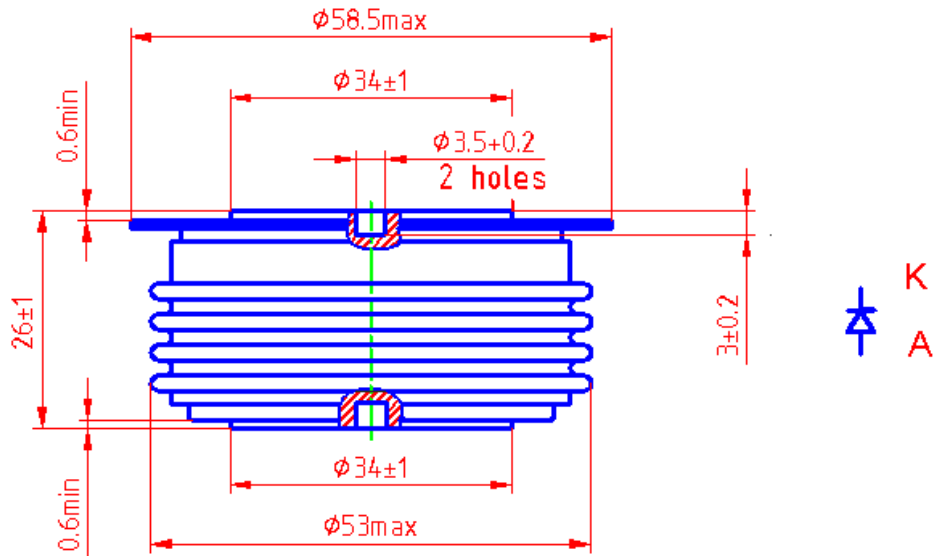
CHARACTERISTICS

Symbols and parameters		Units	D443-800	Conditions
Qrr	Recovered charge (typ)	μC	2500	$T_{vj}=150^{\circ}\text{C}$ $I_F=800\text{ A}$ $di_R/dt = 10\text{ A}/\mu\text{s}$ $U_R=100\text{V}$
trr	Reverse recovery time (typ)	μs	40	
Irrm	Peak reverse recovery current (typ)	A	125	
Rthjc	Thermal resistance junction to case	$^{\circ}\text{C}/\text{W}$	0,03	Direct current, double side cooled

ORDERING

	D	443	800	40	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (40=4000 V)



Mounting force : 13 ÷ 19 kN
Weight : 320 grams