



TET ESTEL AS
ESTONIA

October
2015

Series
D233-500

Rectifier Press-Pack
Diode
Type D233-500

Designed for rectifiers and industrial applications

Maximum mean forward current	I_{FAV}						500 A		
Maximum repetitive peak reverse voltage	U_{RRM}						1200 ÷ 2400 V		
Reverse recovery time	trr (typ)						27 µs		
U _{RRM} , V	1200	1300	1400	1500	1600	1800	2000	2200	2400
Voltage code	12	13	14	15	16	18	20	22	24
T _{vj} , °C	- 60 ÷ 175								

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D233-500	Conditions	
I _{FAV}	Mean forward current	A	500 1225	T _c =144 °C, T _c =55 °C, 180° half-sine wave, 50 Hz	
I _{FRMS}	RMS forward current	A	785	T _c =144 °C	
I _{FSM}	Surge forward current	kA	10 11	T _{vj} =175°C T _{vj} =25°C	tp=10 ms U _R =0
I ² t	Limiting load integral	kA ² s	500 605	T _{vj} =175°C T _{vj} =25°C	
U _{RRM}	Repetitive peak reverse voltage	V	1200÷2400	T _{j min} ≤T _{vj} ≤T _{jM} 180° half-sine wave, 50 Hz	
U _{RSM}	Non-repetitive peak reverse voltage	V	1300÷2500	T _{j min} ≤T _{vj} ≤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	1,75	T _{vj} =25°C, I _{TM} =3,14 I _{TAV}
U _{F(TO)}	Threshold voltage	V	0,85	T _{vj} =175°C 1,57 I _{TAV} < I _T < 4,71 I _{TAV}
R _T	Forward slope resistance	mΩ	0,53	
I _{RRM}	Repetitive peak reverse current	mA	50	T _{vj} =175°C, U _R = U _{RRM}

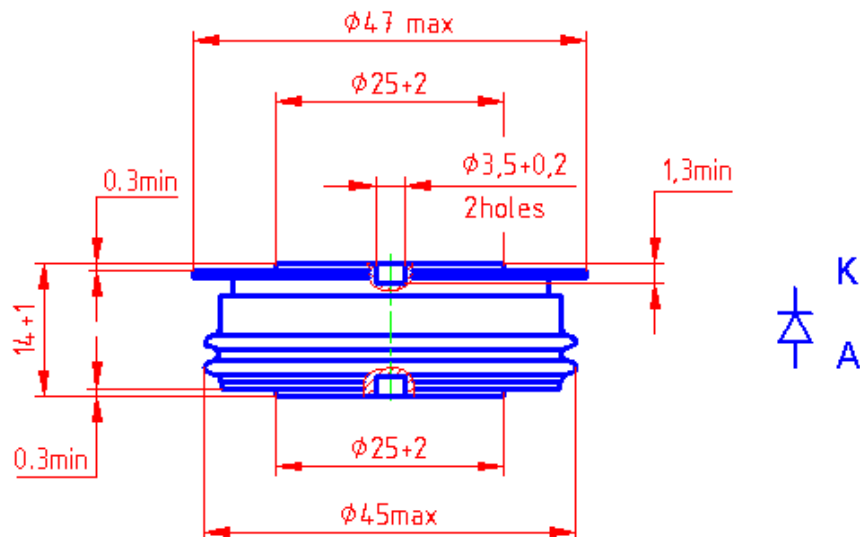
CHARACTERISTICS

Symbols and parameters		Units	D233-500	Conditions
Q _{rr}	Recovered charge (typ)	μC	1600	T _{vj} =175°C I _F =500 A di _R /dt =10 A/μs U _R =100V
t _{rr}	Reverse recovery time (typ)	μs	27	
I _{rrm}	Peak reverse recovery current (typ)	A	115	
R _{thjc}	Thermal resistance junction to case	°C/W	0,04	Direct current, double side cooled

ORDERING

	D	233	500	20	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (20=2000 V)



Mounting force : 8 ÷ 12 kN
Weight : 120 grams