



**TET ESTEL AS**  
ESTONIA

**October**  
**2015**

**Series**  
**D333-500**

**Rectifier Press-Pack**  
**Diode**  
**Type D333-500**

Designed for rectifiers and industrial applications

Maximum mean forward current			<b>I<sub>FAV</sub></b>	<b>500 A</b>		
Maximum repetitive peak reverse voltage			<b>U<sub>RRM</sub></b>	<b>2200 ÷ 3200 V</b>		
Reverse recovery time			<b>trr (typ)</b>	<b>30 µs</b>		
U <sub>RRM</sub> , V	2200	2400	2600	2800	3000	3200
Voltage code	22	24	26	28	30	32
T <sub>vj</sub> , °C	- 60 ÷ 150					

**MAXIMUM ALLOWABLE RATINGS**

Symbols and parameters		Units	D333-500	Conditions	
I <sub>FAV</sub>	Mean forward current	A	500 1160	T <sub>c</sub> =122 °C, T <sub>c</sub> =55 °C, 180° half-sine wave, 50 Hz	
I <sub>FRMS</sub>	RMS forward current	A	785	T <sub>c</sub> =122 °C	
I <sub>FSM</sub>	Surge forward current	kA	11 12	T <sub>vj</sub> =150°C T <sub>vj</sub> =25°C	tp=10 ms U <sub>R</sub> =0
I <sup>2</sup> t	Limiting load integral	kA <sup>2</sup> s	605 720	T <sub>vj</sub> =150°C T <sub>vj</sub> =25°C	
U <sub>RRM</sub>	Repetitive peak reverse voltage	V	2200÷3200	T <sub>j min</sub> ≤T <sub>vj</sub> ≤T <sub>jM</sub> 180° half-sine wave, 50 Hz	
U <sub>RSM</sub>	Non-repetitive peak reverse voltage	V	2300÷3300	T <sub>j min</sub> ≤T <sub>vj</sub> ≤T <sub>jM</sub> 180° half-sine wave tp=10 ms, Single pulse	
T <sub>stg</sub>	Storage temperature	°C	-60÷80		
T <sub>vj</sub>	Junction temperature	°C	-60÷150		

**CHARACTERISTICS**

U <sub>FM</sub>	Peak forward voltage	V	1,6	T <sub>vj</sub> =25°C, I <sub>TM</sub> =3,14 I <sub>TAV</sub>
U <sub>F(TO)</sub>	Threshold voltage	V	0,9	T <sub>vj</sub> =150°C 1,57 I <sub>TAV</sub> < I <sub>T</sub> <4,71 I <sub>TAV</sub>
R <sub>T</sub>	Forward slope resistance	mΩ	0,4	
I <sub>RRM</sub>	Repetitive peak reverse current	mA	50	T <sub>vj</sub> =150°C, U <sub>R</sub> = U <sub>RRM</sub>

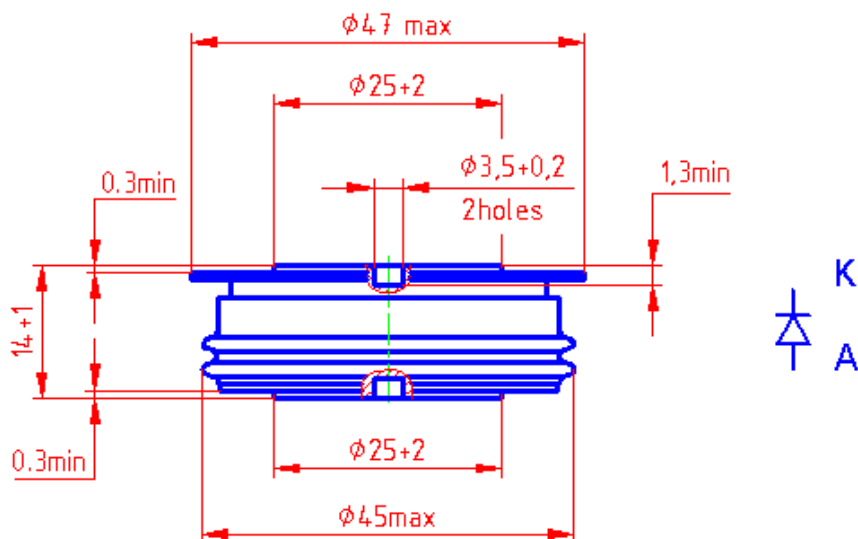
### CHARACTERISTICS

Symbols and parameters		Units	D333-500	Conditions
Q <sub>rr</sub>	Recovered charge (typ)	μC	1600	T <sub>vj</sub> =150°C I <sub>F</sub> =500 A di <sub>R</sub> /dt =10 A/μs U <sub>R</sub> =100V
t <sub>rr</sub>	Reverse recovery time (typ)	μs	30	
I <sub>rrm</sub>	Peak reverse recovery current (typ)	A	105	
R <sub>thjc</sub>	Thermal resistance junction to case	°C/W	0,04	Direct current, double side cooled

### ORDERING

	D	333	500	30	
	1	2	3	4	

1. Diode
2. Design version
3. Mean forward current, A
4. Voltage code (30=3000 V)



Mounting force : 8 ÷ 12 kN  
Weight : 120 grams