	TET ESTEL AS ESTONIA	**October 2015**

Series
D371-500
D371-500X

Rectifier Stud-Mounted Diodes Type D371-500, D371-500X

Designed for rectifiers and industrial applications

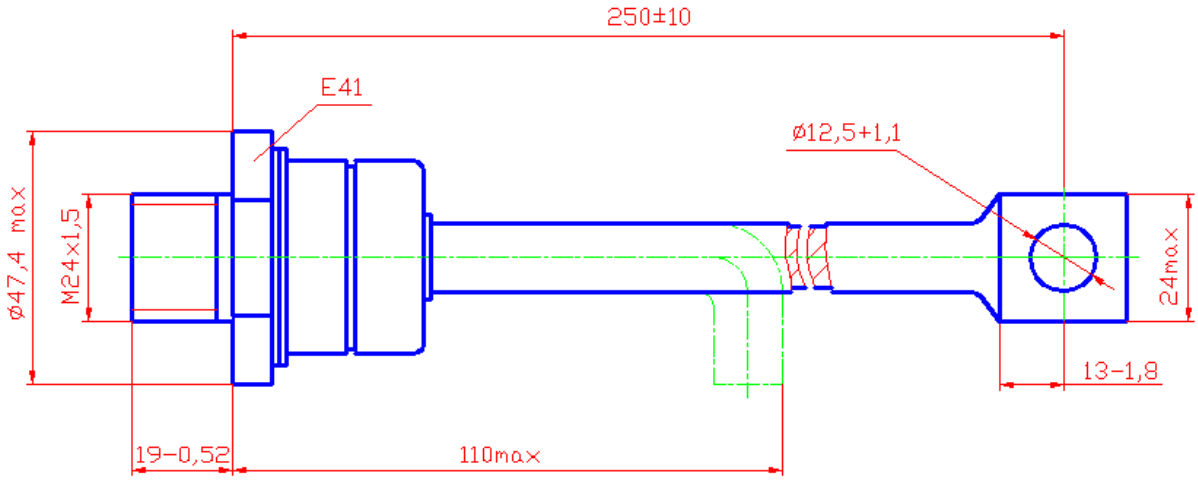
Maximum mean forward current			I_{FAV}	**500 A**	
Maximum repetitive peak reverse voltage			U_{RRM}	**1600 ÷2400 V**	
Reverse recovery time			**trr (typ)**	**27 µs**	
U_{RRM}, V	1600	1800	2000	2200	2400
Voltage code	16	18	20	22	24
Tvj, °C	- 60 ÷ 175				

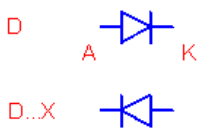
MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	D371-500 D371-500X	Conditions	
I_{FAV}	Mean forward current	A	500 700	Tc=110 °C, Tc=70 °C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	785	Tc=110°C	
I_{FSM}	Surge forward current	kA	10 11	Tvj=175°C Tvj= 25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	500 605	Tvj=175°C Tvj= 25°C	
U_{RRM}	Repetitive peak reverse voltage	V	1600÷2400	Tj мin≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	1700÷2500	Tj мin≤Tvj≤Tjм 180° half-sine wave tp=10 ms, Single pulse	
Tstg	Storage temperature	°C	-60÷80		
Tvj	Junction temperature	°C	-60÷175		
CHARACTERISTICS					
U_{FM}	Peak forward voltage	V	1,75	Tvj=25°C, I_{FM}=3,14 I_{FAV}	
$U_{F(TO)}$	Threshold voltage	V	0,85	Tvj=175°C 1,57 I_{FAV}< I_F <4,71 I_{FAV}	
R_T	Forward slope resistance	mΩ	0,53		
I_{RRM}	Repetitive peak reverse current	mA	50	Tvj=175°C, U_R= U_{RRM}	

CHARACTERISTICS				
Symbols and parameters		Units	D371-500 D371-500X	Conditions
Qrr	Recovered charge (typ)	µC	1600	Tvj=175°C, I_F=500A,U_R=100V di_R / dt = 10A/µs
trr	Reverse recovery time (typ)	µS	27	
Irr_M	Peak reverse recovery current (typ)	A	115	
Rthjc	Thermal resistance junction to case	°C/W	0,085	Direct current

ORDERING						
	D	**371**	**500**	**X**	**24**	
	1	**2**	**3**	**4**	**5**	

1. Diode
2. Design version
3. Mean forward current, A
4. Reverse polarity (cathode stud mounted), without X-normal polarity
5. Voltage code (24 = 2400 V)





Tightening torque: 40 ÷ 60 Nm
Weight : 480 grams