	TET ESTEL AS ESTONIA	**July 2013**

Series
DL353-1600

Avalanche Rectifier Press-Pack Diode
Type DL353-1600

Guaranteed maximum avalanche power dissipation.
Designed for rectifiers and industrial applications.

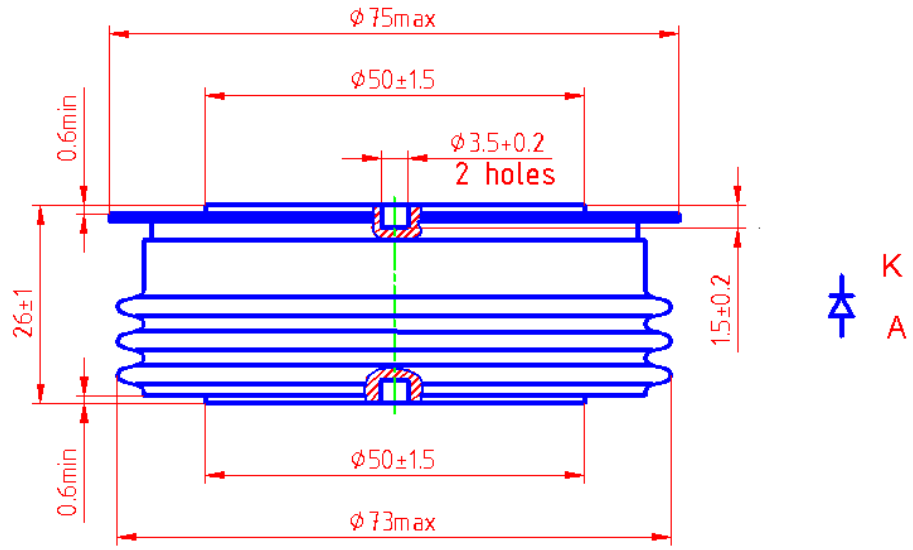
Maximum mean forward current				I_{FAV}	**1600 A**	
Maximum repetitive peak reverse voltage				U_{RRM}	**2200 ÷3200 V**	
Surge reverse power dissipation				P_{RSM}	**16kW**	
Reverse recovery time				**trr** (typ)	**50 µs**	
U_{RRM}, V	2200	2400	2600	2800	3000	3200
Voltage code	22	24	26	28	30	32
Tvj, °C	- 60 ÷ 175					

MAXIMUM ALLOWABLE RATINGS					
Symbols and parameters		Units	DL353-1600	Conditions	
I_{FAV}	Mean forward current	A	1600 2310	Tc=107 °C, Tc=55 °C, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	2512	Tc=107 °C	
I_{FSM}	Surge forward current	kA	28 30	Tvj=175°C Tvj=25°C	tp=10 ms U_R=0
I^2t	Limiting load integral	kA^2s	3920 4500	Tvj=175°C Tvj=25°C	
U_{RRM}	Repetitive peak reverse voltage	V	2200÷3200	Tj min≤Tvj≤Tjм 180° half-sine wave, 50 Hz	
U_{BR}	Reverse breakdown voltage	V	2750÷4000	Tj min≤Tvj≤Tjм 180° half-sine wave, 50 Hz I_R=10mA	
P_{RSM}	Surge reverse power dissipation	kW	16	Tvj=175°C; tp=100µs; 180° half-sine wave	
Tstg	Storage temperature	°C	-60÷80		
Tvj	Junction temperature	°C	-60÷175		
CHARACTERISTICS					
U_{FM}	Peak forward voltage	V	2,0	Tvj=25°C, I_{TM}=3,14 I_{TAV}	
$U_{F(TO)}$	Threshold voltage	V	0,95	Tvj=175°C 1,57 I_{TAV}< I_T <4,71 I_{TAV}	
R_T	Forward slope resistance	mΩ	0,29		

CHARACTERISTICS				
Symbols and parameters		Units	DL353-1600	Conditions
I_{RRM}	Repetitive peak reverse current	mA	100	Tvj=175°C, $U_R = U_{RRM}$
Qrr	Recovered charge (typ)	µC	5000	Tvj=175°C I_F=1600 A di_R/dt =10 A/µs U_R=100V
trr	Reverse recovery time (typ)	µs	50	
I_{RM}	Peak reverse recovery current (typ)	A	200	
Rthjc	Thermal resistance junction to case	°C/W	0,02	Direct current, double side cooled

ORDERING					
	DL	**353**	**1600**	**30**	
	1	**2**	**3**	**4**	

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



Mounting force : 19 ÷ 28 kN
Weight : 580 grams