



TET ESTEL AS
ESTONIA

February
2014

Series
D353-1600

Rectifier Press-Pack
Diode
Type D353-1600

Designed for rectifiers and industrial applications

Maximum mean forward current	I_{FAV}							1600 A
Maximum repetitive peak reverse voltage	U_{RRM}							2200 ÷ 3400 V
Reverse recovery time	trr (typ)							50 μs
U_{RRM} , V	2200	2400	2600	2800	3000	3200	3400	
Voltage code	22	24	26	28	30	32	34	
T_{vj} , °C	- 60 ÷ 150							

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D353-1600	Conditions
I_{FAV}	Mean forward current	A	1600 2440	$T_c=100\text{ }^\circ\text{C}$, $T_c=55\text{ }^\circ\text{C}$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	2512	$T_c=100\text{ }^\circ\text{C}$
I_{FSM}	Surge forward current	kA	28 30	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$ tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA^2s	3920 4500	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$
U_{RRM}	Repetitive peak reverse voltage	V	2200÷3400	$T_{j\text{ min}} \leq T_{vj} \leq T_{j\text{ M}}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	2300÷3500	$T_{j\text{ min}} \leq T_{vj} \leq T_{j\text{ M}}$ 180° half-sine wave tp=10 ms, Single pulse
T_{stg}	Storage temperature	°C	-60÷80	
T_{vj}	Junction temperature	°C	-60÷150	

CHARACTERISTICS

U_{FM}	Peak forward voltage	V	2,0	$T_{vj}=25\text{ }^\circ\text{C}$, $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	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	$\text{m}\Omega$	0,19	
I_{RRM}	Repetitive peak reverse current	mA	75	$T_{vj}=150\text{ }^\circ\text{C}$, $U_R = U_{RRM}$

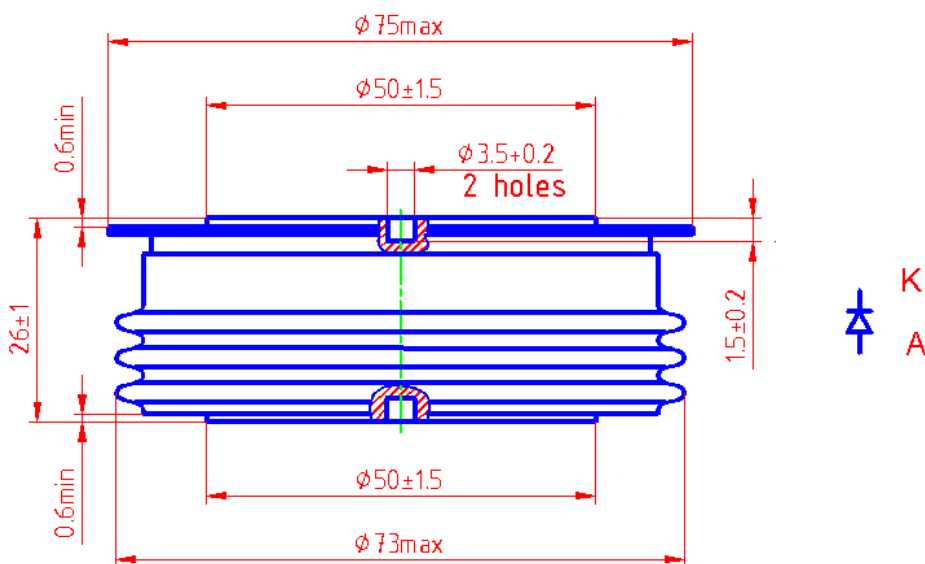
CHARACTERISTICS

Symbols and parameters		Units	D353-1600	Conditions
Qrr	Recovered charge (typ)	μC	5000	$T_{vj}=150^{\circ}\text{C}$ $I_F=1600\text{ A}$ $di_R/dt = 10\text{ A}/\mu\text{s}$ $U_R=100\text{V}$
trr	Reverse recovery time (typ)	μs	50	
Irrm	Peak reverse recovery current (typ)	A	200	
Rthjc	Thermal resistance junction to case	$^{\circ}\text{C}/\text{W}$	0,02	

ORDERING

	D	353	1600	30	
	1	2	3	4	

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



Mounting force : $19 \div 28\text{ kN}$
 Weight : 580 grams