



TET ESTEL AS
ESTONIA

September
2015

Series
D151-160
D151-160X

Rectifier Stud-Mounted
Diodes
Type D151-160,
D151-160X

Designed for rectifiers and industrial applications.

Maximum mean forward current					I_{FAV}	160 A		
Maximum repetitive peak reverse voltage					U_{RRM}	1000 ÷ 1800 V		
Reverse recovery time					trr (typ)	20 μs		
U_{RRM}, V	1000	1100	1200	1300	1400	1500	1600	1800
Voltage code	10	11	12	13	14	15	16	18
$T_{vj}, °C$	- 60 ÷ 175							

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters		Units	D151-160 D151-160X	Conditions
I_{FAV}	Mean forward current	A	160	$T_c=128 °C$, 180° half-sine wave, 50 Hz
I_{FRMS}	RMS forward current	A	250	$T_c=128 °C$
I_{FSM}	Surge forward current	kA	4,5 5,0	$T_{vj}=175 °C$ $T_{vj}= 25 °C$ tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA^2s	101 125	$T_{vj}=175 °C$ $T_{vj}= 25 °C$
U_{RRM}	Repetitive peak reverse voltage	V	1000÷1600	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
U_{RSM}	Non-repetitive peak reverse voltage	V	1100÷1700	$T_j \min \leq T_{vj} \leq T_{jM}$ 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	1,55	$T_{vj}=25 °C$, $I_{FM}=3,14 I_{FAV}$
$U_{F(TO)}$	Threshold voltage	V	0,95	$T_{vj}=175 °C$
R_T	Forward slope resistance	mΩ	1,05	1,57 $I_{FAV} < I_F < 4,71 I_{FAV}$
I_{RRM}	Repetitive peak reverse current	mA	20	$T_{vj}=175 °C$, $U_R = U_{RRM}$

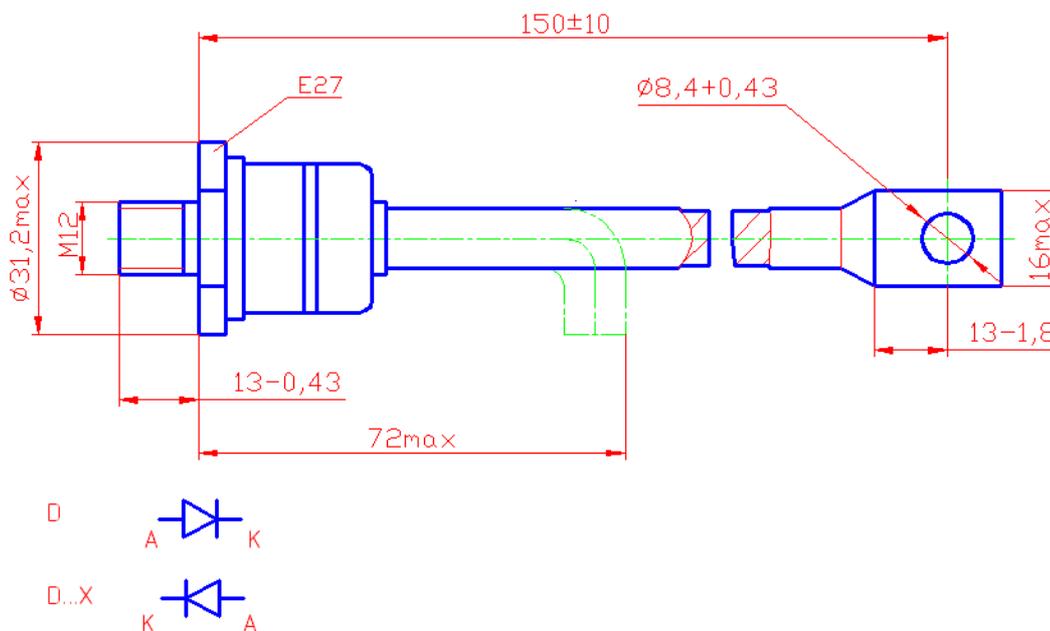
CHARACTERISTICS

Symbols and parameters		Units	D151-160 D151-160X	Conditions
Q _{rr}	Recovered charge (typ)	μC	600	T _{vj} =175°C, I _F =160A, U _R =100V di _R / dt = 10A/μs
t _{rr}	Reverse recovery time (typ)	μS	20	
I _{rrm}	Peak reverse recovery current (typ)	A	60	
R _{thjc}	Thermal resistance junction to case	°C/W	0,21	Direct current

ORDERING

	D	151	160	X	14	
	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 (14 = 1400 V)



Tightening torque: 12 ÷ 18 Nm
Weight : 150 grams