



**TET ESTEL AS**  
ESTONIA

**September**  
**2015**

**Series**  
**DL243-1000**

**Avalanche Rectifier Press-Pack**  
**Diode**  
**Type DL243-1000**

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

Maximum mean forward current	$I_{FAV}$	<b>1000 A</b>				
Maximum repetitive peak reverse voltage	$U_{RRM}$	<b>1600 ÷ 2600 V</b>				
Surge reverse power dissipation	$P_{RSM}$	<b>16 kW</b>				
Reverse recovery time	$t_{rr}$ (typ)	<b>35 <math>\mu</math>s</b>				
$U_{RRM}$ , V	1600	1800	2000	2200	2400	2600
Voltage code	16	18	20	22	24	26
$T_{vj}$ , °C	- 60 ÷ 150					

**MAXIMUM ALLOWABLE RATINGS**

Symbols and parameters		Units	DL243-1000	Conditions
$I_{FAV}$	Mean forward current	A	1000 1810	$T_c=100\text{ }^\circ\text{C}$ , $T_c=55\text{ }^\circ\text{C}$ , 180° half-sine wave, 50 Hz
$I_{FRMS}$	RMS forward current	A	1570	$T_c=100\text{ }^\circ\text{C}$
$I_{FSM}$	Surge forward current	kA	17 19	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$ tp=10 ms $U_R=0$
$I^2t$	Limiting load integral	$\text{kA}^2\text{s}$	1445 1805	$T_{vj}=150\text{ }^\circ\text{C}$ $T_{vj}=25\text{ }^\circ\text{C}$
$U_{RRM}$	Repetitive peak reverse voltage	V	1600÷2600	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz
$U_{BR}$	Reverse breakdown voltage	V	2000÷3250	$T_j \text{ min} \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz $I_R=10\text{ mA}$
$P_{RSM}$	Surge reverse power dissipation	kW	16	$T_{vj}=175\text{ }^\circ\text{C}$ ; tp=100 $\mu$ s; 180° half-sine wave
$T_{stg}$	Storage temperature	°C	-60÷80	
$T_{vj}$	Junction temperature	°C	-60÷150	

**CHARACTERISTICS**

$U_{FM}$	Peak forward voltage	V	1,7	$T_{vj}=25\text{ }^\circ\text{C}$ , $I_{TM}=3,14 I_{TAV}$
$U_{F(TO)}$	Threshold voltage	V	1,0	$T_{vj}=150\text{ }^\circ\text{C}$ 1,57 $I_{TAV} < I_T < 4,71 I_{TAV}$
$R_T$	Forward slope resistance	m $\Omega$	0,27	

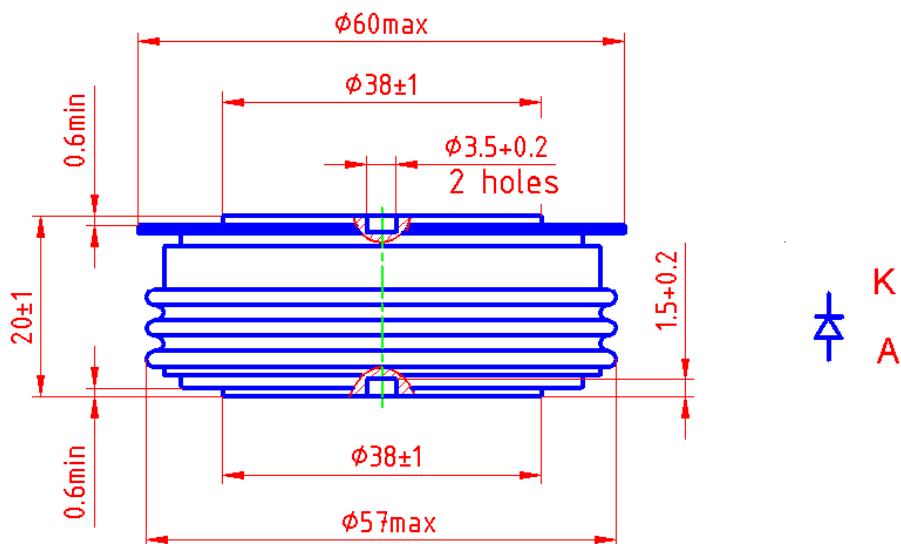
### CHARACTERISTICS

Symbols and parameters		Units	DL243-1000	Conditions
I <sub>RRM</sub>	Repetitive peak reverse current	mA	50	T <sub>vj</sub> =150°C, U <sub>R</sub> = U <sub>RRM</sub>
Q <sub>rr</sub>	Recovered charge (typ)	μC	2400	T <sub>vj</sub> =150°C I <sub>F</sub> =1000 A di <sub>R</sub> /dt =10 A/μs U <sub>R</sub> =100V
t <sub>rr</sub>	Reverse recovery time (typ)	μs	35	
I <sub>rrm</sub>	Peak reverse recovery current (typ)	A	135	
R <sub>thjc</sub>	Thermal resistance junction to case	°C/W	0,03	Direct current, double side cooled

### ORDERING

	DL	243	1000	24	
	1	2	3	4	

1. Avalanche diode.
2. Design version.
3. Mean forward current, A.
4. Voltage code (24=2400 V).



Mounting force: 13 ÷ 19 kN  
Weight: 260 grams