



**THE DATASHEET OF
DF053-1600-8_26MM**





TET ESTEL AS
ESTONIA

September
2015

Series
DF053-1600

Fast Recovery Press-Pack
Diode
Type DF053-1600

For use as high-power inverters,
fly-wheel diodes in DC choppers,
power supplies as high frequency rectifier

Maximum mean forward current					I_{FAV}	1600 A	
Maximum repetitive peak reverse voltage					U_{RRM}	200 ÷ 800 V	
Reverse recovery time					trr	2,5; 3,2; 4,0 μs	
U_{RRM}, V	200	300	400	500	600	700	800
Voltage code	2	3	4	5	6	7	8
$T_{vj}, °C$	- 60 ÷ 125						

MAXIMUM ALLOWABLE RATINGS



Symbols and parameters		Units	DF053-1600	Conditions	
I_{FAV}	Mean forward current	A	1600 2520	$T_c=85°C$, $T_c=55°C$, 180° half-sine wave, 50 Hz	
I_{FRMS}	RMS forward current	A	2512	$T_c=85°C$	
I_{FSM}	Surge forward current	kA	30 33	$T_{vj}=125°C$ $T_{vj}= 25°C$	tp=10 ms $U_R=0$
I^2t	Limiting load integral	kA^2s	4500 5445	$T_{vj}=125°C$ $T_{vj}= 25°C$	
U_{RRM}	Repetitive peak reverse voltage	V	200÷800	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave, 50 Hz	
U_{RSM}	Non-repetitive peak reverse voltage	V	300÷900	$T_j \min \leq T_{vj} \leq T_{jM}$ 180° half-sine wave tp=10 ms, Single pulse	
T_{stg}	Storage temperature	°C	-60÷80		
T_{vj}	Junction temperature	°C	-60÷125		

CHARACTERISTICS

U_{FM}	Peak forward voltage	V	1,5	$T_{vj}=25°C$, $I_{FM}=3,14 I_{FAV}$
$U_{F(TO)}$	Threshold voltage	V	0,93	$T_{vj}=125°C$ $1,57 I_{FAV} < I_F < 4,71 I_{FAV}$
R_T	Forward slope resistance	mΩ	0,07	
I_{RRM}	Repetitive peak reverse current	mA	50	$T_{vj}=125°C$, $U_R = U_{RRM}$

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