



FAST RECTIFIER DIODE DF273-2000

<ul style="list-style-type: none">◆ $V_{RRM} = \underline{1000-2400 V}$◆ $I_{F(AV)} = \underline{2980 A}$ ($T_C = 85^\circ C$)◆ $I_{FSM} = \underline{48 kA}$ ($t_p = 10ms$)		
<ul style="list-style-type: none">◆ Small recovered time and charge◆ Acceptable for series and parallel connections (low dispersion Q_{rr}, V_{FM}, I_{RRM})◆ Press-pack design		

MAXIMUM RATED VALUES			
Parameter and conditions	Symbol	Values	Units
Repetitive peak reverse voltage, $T_j = -60 \dots +150^\circ C$	V_{RRM}	1000-2400	V
Non-repetitive peak reverse voltage, $T_j = -60 \dots +150^\circ C$	V_{RSM}	1100-2500	
Repetitive peak reverse current, $T_j = 150^\circ C$, $V_R = V_{RRM}$	I_{RRM}	100	mA
Maximum average forward current, $T_C = 85^\circ C$, $f = 50 Hz$	$I_{F(AV)}$	2980	A
RMS forward current, $T_C = 85^\circ C$, $f = 50 Hz$	I_{FRMS}	4678	
Surge non-repetitive current, $T_j = 150^\circ C$, $V_R = 0$, $t_p = 10 ms$	I_{FSM}	48	kA
Safety factor	I^2t	$11520 \cdot 10^3$	A^2s
Operation junction temperature range	T_j	-60 ... +150	$^\circ C$
Storage temperature range	T_{stg}	-60 ... +50	

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ELECTRICAL CHARACTERISTICS					
Parameter and conditions	Symbol	Values			Units
		min	typ.	max	
Maximum peak forward voltage, $T_j = 25\text{ °C}$, $I_F = 6280\text{ A}$	V_{FM}	-	-	2,0	V
On-state threshold voltage, $T_j = 150\text{ °C}$, $I_F = 3140 - 9400\text{ A}$	V_{TO}	-	-	1,05	
On-state slope resistance, $T_j = 150\text{ °C}$, $I_F = 3140 - 9400\text{ A}$	r_T	-	-	0,127	mΩ
Reverse recovery time $T_j = 150\text{ °C}$, $I_F = 2000\text{ A}$, $di_F/dt = -100\text{ A}/\mu\text{s}$, $V_R \geq 100\text{ V}$	t_{rr}	-	-	3,2; 4,0; 5,0; 6,3	μs
THERMAL PARAMETERS					
Thermal resistance junction to case, DC per diode double side cooled anode side cooled cathode side cooled	$R_{th(j-c)}$	-	-	0,011 0,022 0,022	°C/W
Thermal resistance case to heatsink, double side cooled single side cooled	$R_{th(c-h)}$	-	-	0,003 0,006	
MECHANICAL PARAMETERS					
Weight	w	-	1,2	-	kg
Mounting force	F	40		50	kN m/s ²
Maximum acceleration (at nominal mounting force)	a	-	-	100	



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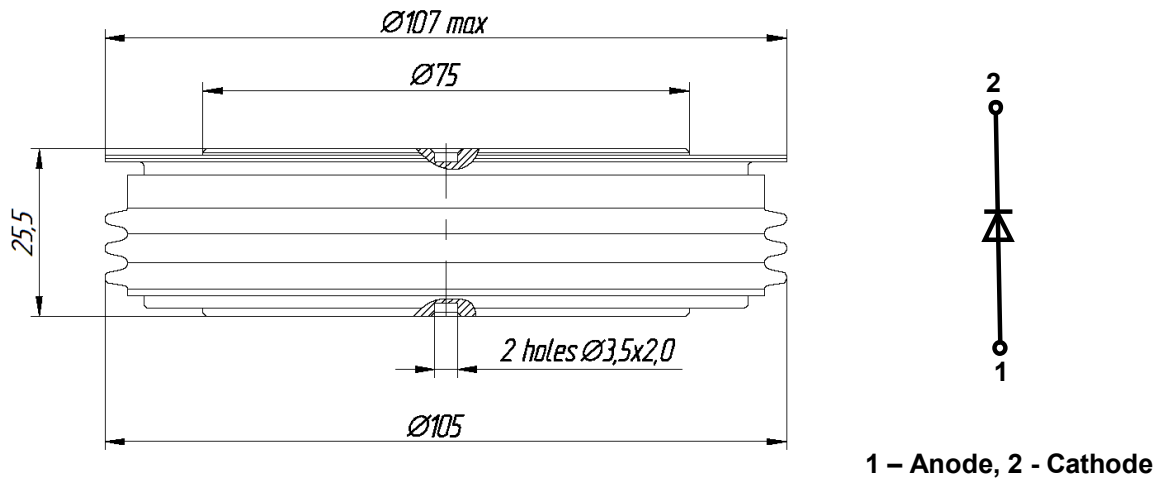


Fig. 1. Device Outline Drawing
(dimensions in mm)



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