





PRESS-PACK RECTIFIER DIODE D173-2500

<ul style="list-style-type: none">◆ $V_{RRM} = \underline{4400-5200 V}$◆ $I_{F(AV)} = \underline{3060 A}$ ($T_C = 85^\circ C$)◆ $I_{FSM} = \underline{37 kA}$ ($t_p = 10ms$)		
<ul style="list-style-type: none">◆ Low forward losses◆ Low dispersion Q_{RR} and V_{FM} for series and parallel connections◆ 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}	4400-5200	V
Non-repetitive peak reverse voltage, $T_j = -60 \dots +150^\circ C$	V_{RSM}	4500-5300	
Repetitive peak reverse current, $T_j = 150^\circ C, V_R = V_{RRM}$	I_{RRM}	150	mA
Maximum average forward current, $T_C = 85^\circ C, f = 50 Hz$	$I_{F(AV)}$	3060	A
RMS forward current, $T_C = 85^\circ C, f = 50 Hz$	I_{FRMS}	4800	
Surge non-repetitive current, $T_j = 150^\circ C, V_R = 0, t_p = 10 ms$	I_{FSM}	37	kA
Safety factor	I^2t	$6845 \cdot 10^3$	A^2s
Operation junction temperature range	T_j	-60 ... +150	$^\circ C$
Storage temperature range	T_{stg}	-60 ... +50	

**D173-2500**

ELECTRICAL CHARACTERISTICS					
Parameter and conditions	Symbol	Values			Units
		min	typ.	max	
Maximum peak forward voltage, $T_j = 25\text{ °C}$, $I_F = 7850\text{ A}$	V_{FM}	-	-	1,95	V
On-state threshold voltage, $T_j = 150\text{ °C}$, $I_F = 3925 - 11800\text{ A}$	V_{TO}	-	-	0,95	
On-state slope resistance, $T_j = 150\text{ °C}$, $I_F = 3925 - 11800\text{ A}$	r_T	-	-	0,155	mΩ
Recovery charge, $T_j = 150\text{ °C}$, $I_F = 2500\text{ A}$, $di_F/dt = -5\text{ A}/\mu\text{s}$, $V_R \geq 100\text{ V}$	Q_{RR}	-	-		μAs
Recovery current, $T_j = 150\text{ °C}$, $I_F = 2500\text{ A}$, $di_F/dt = -5\text{ A}/\mu\text{s}$, $V_R \geq 100\text{ V}$	I_{RR}	-	-		A
THERMAL PARAMETERS					
Thermal resistance junction to case, DC per diode double side cooled anode side cooled cathode side cooled	$R_{th(j-c)}$	-	-	0,010 0,020 0,020	°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	-	1,20	-	kg
Mounting force	F	40		50	kN
Maximum acceleration (at nominal mounting force)	a	-	-		m/s ²



D173-2500

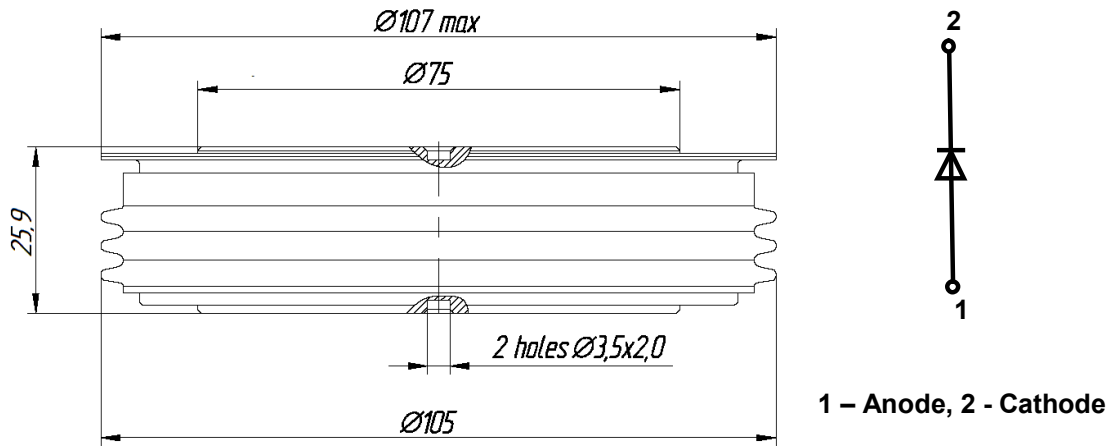


Fig. 1. Device Outline Drawing
(dimensions in mm)



126, Proletarskaya str.,
430001, Saransk, Republic Mordovia, Russia
Tel: +7(8342) 47-04-30
Tel/Fax: +7 (8342) 47-15-01
E-mail: vpruvs@elvpr.ru
Internet: www.elvpr.ru