



PRESS - PACK RECTIFIER DIODE D153-6300

<ul style="list-style-type: none">◆ $V_{RRM} = \underline{200-400 V}$◆ $I_{F(AV)} = \underline{6930}$ ($T_C = 85^\circ C$)◆ $I_{FSM} = \underline{50 kA}$ ($t_p = 10ms$)		
<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, $T_j = -60 \dots +180^\circ C$	V_{RRM}	200-400	V
Non- repetitive peak reverse voltage, $T_j = -60 \dots +180^\circ C$	V_{RSM}	300-500	
Repetitive peak reverse current, $T_j = 180^\circ C, V_R = V_{RRM}$	I_{RRM}	90	mA
Maximum average forward current, $T_C = 85^\circ C, f = 50 Hz$	$I_{F(AV)}$	6930	A
RMS forward current, $T_C = 85^\circ C, f = 50 Hz$	I_{FRMS}	10880	
Surge non-repetitive current, $T_j = 180^\circ C, V_R = 0, t_p = 10 ms$	I_{FSM}	50	kA
Safety factor	I^2t	$12,5 \cdot 10^6$	A^2s
Operation junction temperature range	T_j	-60 ... +180	$^\circ C$
Storage temperature range	T_{stg}	-60 ... +50	

**D153-6300**

ELECTRICAL CHARACTERISTICS					
Parameter and conditions	Symbol	Values			Units
		min	typ.	max	
Maximum peak forward voltage, $T_j = 25\text{ °C}$, $I_F = 5000\text{ A}$	V_{FM}	-	-	1,15	V
On-state threshold voltage, $T_j = 180\text{ °C}$, $I_F = 9800 - 30000\text{ A}$	V_{TO}	-	-	0,80	
On-state slope resistance, $T_j = 180\text{ °C}$, $I_F = 9800 - 30000\text{ A}$	r_T	-	-	0,026	mΩ
Recovery charge, $T_j = 180\text{ °C}$, $I_F = 6300\text{ A}$, $di_F/dt = -5\text{ A}/\mu\text{s}$, $V_R \geq 100\text{ V}$	Q_{RR}	-	-		μAs
Recovery current, $T_j = 180\text{ °C}$, $I_F = 6300\text{ A}$, $di_F/dt = -5\text{ A}/\mu\text{s}$, $V_R \geq 100\text{ V}$	I_{RR}				A
THERMAL PARAMETERS					
Thermal resistance junction to case, DC per diode double side cooled anode side cooled cathode side cooled	$R_{th(j-c)}$	-	-	0,011 0,022 0,022	°C/W
Thermal resistance case to heatsink, double side cooled single side cooled	$R_{th(c-h)}$	-	-	0,005 0,010	
MECHANICAL PARAMETERS					
Weight	w	-	0,13	-	kg
Clamping force	F	20	-	24	kN
Maximum acceleration (at nominal mounting torque)	a	-	-	100	m/s ²



D153-6300

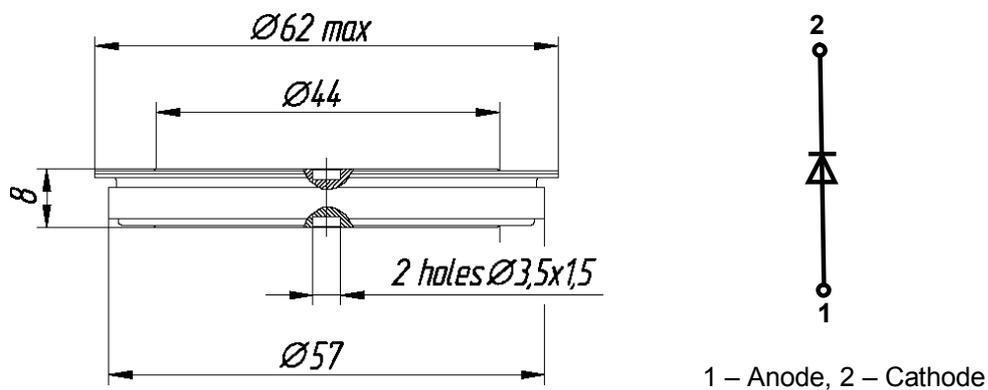


Fig. 1. Device Outline Drawing
(dimensions in mm)



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