



RECTIFIER DIODE

D172-63

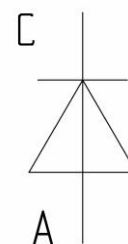
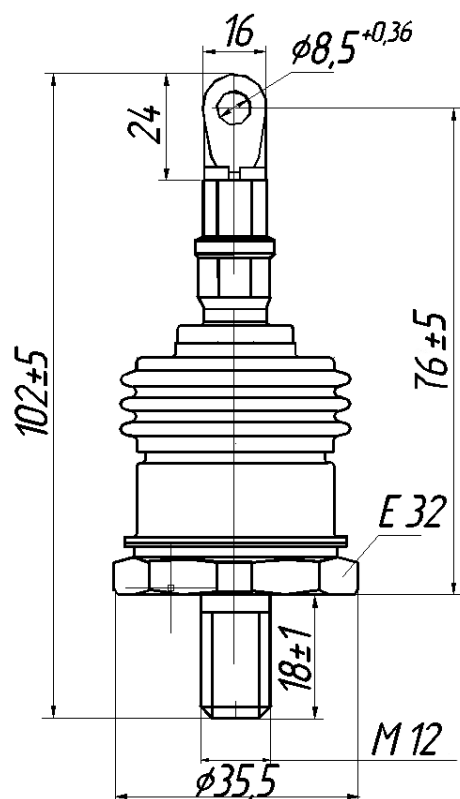
<ul style="list-style-type: none"> ◆ $V_{RRM} = \underline{5000\text{ V}}$ ◆ $I_{F(AV)} = \underline{63\text{ A}}$ ($T_C = 95\text{ }^\circ\text{C}$) ◆ $I_{FSM} = \underline{0,7\text{ kA}}$ ($T_j = 125\text{ }^\circ\text{C}$) 			
<ul style="list-style-type: none"> ◆ High reverse voltage ◆ Hermetic metal-ceramic case ◆ Acceptable for series and parallel connections (low dispersion Q_{rr}, V_{FM}) 			
MAXIMUM RATED VALUES			
Parameter and conditions	Symbol	Values	Units
Repetitive peak reverse voltage, $T_j = -60\text{ }^\circ\text{C} \dots +125\text{ }^\circ\text{C}$	V_{RRM}	5000	V
Non- repetitive peak reverse voltage, $T_j = -60\text{ }^\circ\text{C} \dots +125\text{ }^\circ\text{C}$	V_{RSM}	5100	
Repetitive peak reverse current, $T_j = 125\text{ }^\circ\text{C}$, $V_R = V_{RRM}$	I_{RRM}	20	mA
Max. average forward current, $f = 50\text{ Hz}$, $T_C = 95\text{ }^\circ\text{C}$	$I_{F(AV)}$	63	A
RMS forward current	I_{FRMS}	99	
Surge forward current, $T_j = 125\text{ }^\circ\text{C}$, $V_R = 0$, $t_p = 10\text{ ms}$	I_{FSM}	0,7	kA
Safety factor	I^2t	$0,00245 \cdot 10^6$	A^2s
Operation junction temperature range	T_j	-60...+ 125	°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, $T_j = 25\text{ °C}, I_F = 200\text{ A}$	V_{FM}	-	-	1,8	V
Threshold voltage, $T_j = 125\text{ °C}, I_F = 100 - 300\text{ A}$	$V_{F(TO)}$	-	-	1,15	
Slope resistance, $T_j = 125\text{ °C}, I_F = 100 - 300\text{ A}$	r_T	-	-	4,89	mΩ
Recovery charge, $T_j = 125\text{ °C}, I_F = 63\text{ A}, di_F/dt = -5\text{ A}/\mu\text{s}, V_R \geq 100\text{ V}$	Q_{rr}	-	-	300	μAs
Recovery current, $T_j = 125\text{ °C}, I_F = 63\text{ A}, di_F/dt = -5\text{ A}/\mu\text{s}, V_R \geq 100\text{ V}$	I_{rr}			42	A
THERMAL PARAMETERS					
Thermal resistance junction to case,	R_{thjc}	-	-	0,236	°C/W
Thermal resistance case to heatsink,	R_{thch}	-	-	0,06	
MECHANICAL PARAMETERS					
Weight	w	-	0,165	-	kg
Mounting torque	Md	10	-	20	Nm
Maximum acceleration (at nominal mounting torque)	a	-	-	50	m/s ²
Cathode-anode distance on insulator surface	D_s	-	29	-	mm



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C – Cathode, A – Anode

Device Outline Drawing
(dimensions in mm)



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