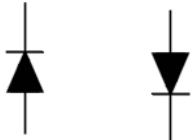



## ROTOR DIODE

### D275-200, Д275-200X

<ul style="list-style-type: none"> <li>◆ <math>V_{RRM} = \underline{2000 - 2600 V}</math></li> <li>◆ <math>I_{F(AV)} = \underline{200 A}</math> (<math>T_C = 139\text{ }^\circ\text{C}</math>)</li> <li>◆ <math>I_{FSM} = \underline{8,0 kA}</math> (<math>T_j = 160\text{ }^\circ\text{C}</math>)</li> </ul>		
<ul style="list-style-type: none"> <li>◆ Flange design (terminals – round copper flange (base plate) and copper pipe);</li> <li>◆ Diodes of direct and reverse polarity;</li> <li>◆ By means of special arrangement centrifugal forces are applied not to silicon chip but to case providing safe operation in large mechanical force conditions: <ul style="list-style-type: none"> <li>- long-term centrifugal accelerations up to 4900g and short-term up to 6800g, operated along an axis of symmetry toward the base plate;</li> <li>- long-term tangential accelerations 980g, operated perpendicular to the diode axis</li> </ul> </li> </ul>		

#### MAXIMUM RATED VALUES

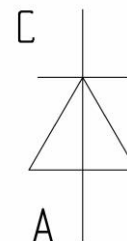
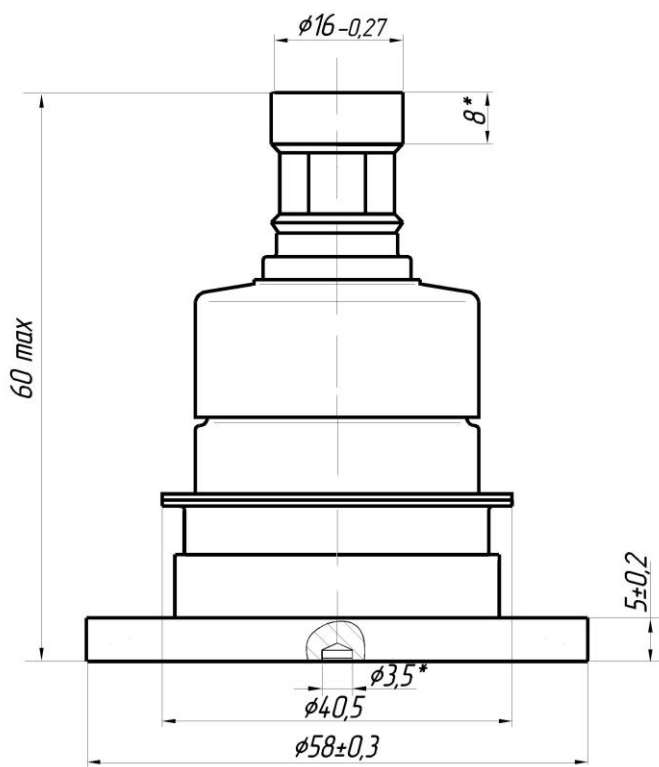
Parameter and conditions	Symbol	Values	Units
Repetitive peak reverse voltage, $T_j = -60\text{ }^\circ\text{C} \dots +160\text{ }^\circ\text{C}$	$V_{RRM}$	2000-2600	V
Non- repetitive peak reverse voltage, $T_j = -60\text{ }^\circ\text{C} \dots +160\text{ }^\circ\text{C}$	$V_{RSM}$	2100-2700	
Repetitive peak reverse current, $T_j = 160\text{ }^\circ\text{C}, V_R = V_{RRM}$	$I_{RRM}$	50	mA
Max. average forward current, $f = 50\text{ Hz}, T_C = 139\text{ }^\circ\text{C}$	$I_{F(AV)}$	200	A
RMS forward current	$I_{FRMS}$	314	
Surge forward current, $T_j = 160\text{ }^\circ\text{C}, V_R = 0, t_p = 10\text{ ms}$	$I_{FSM}$	8,0	kA
Safety factor	$I^2t$	$0,32 \cdot 10^6$	$A^2s$
Operation junction temperature range	$T_j$	-60...+ 160	°C
Storage temperature range	$T_{stg}$	-60...+ 50	

**D275-200, Д275-200X**

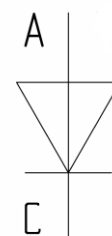
<b>ELECTRICAL CHARACTERISTICS</b>					
Parameter and conditions	Symbol	Values			Units
		min.	typ.	max.	
Maximum peak forward voltage, $T_j = 25\text{ }^\circ\text{C}$ , $I_F = 628\text{ A}$ ,	$V_{FM}$	-	-	1,35	V
Threshold voltage, $T_j = 160\text{ }^\circ\text{C}$ , $I_F = 300\text{ - }1000\text{ A}$	$V_{F(TO)}$	-	-	0,8	
Slope resistance, $T_j = 160\text{ }^\circ\text{C}$ , $I_F = 300\text{ - }1000\text{ A}$	$r_T$	-	-	0,74	mΩ
Recovery charge, $di_F/dt = -5\text{ A}/\mu\text{s}$ , $T_j = 160\text{ }^\circ\text{C}$ , $I_F = 200\text{ A}$ , $V_R \geq 100\text{ V}$	$Q_{rr}$	-	-	850	μAs
<b>THERMAL PARAMETERS</b>					
Thermal resistance junction to case,	$R_{thjc}$	-	-	0,09	°C/W
Thermal resistance case to heatsink,	$R_{thch}$	-	-	0,03	
<b>MECHANICAL PARAMETERS</b>					
Weight	w	-	0,340	-	kg
Mounting torque	$M_d$	13	-	17	Nm
Centrifugal accelerations operated along an axis of symmetry  long-term short-term		-	-	4900 6800	g
Long-term tangential accelerations				980	g
Cathode-anode distance on insulator surface	$D_s$	-	20	-	mm



## D275-200, Д275-200X



D275-200



D275-200X

C – Cathode, A – Anode

**Device Outline Drawing**  
(dimensions in mm)



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