



RECTIFIER DIODE D271-320

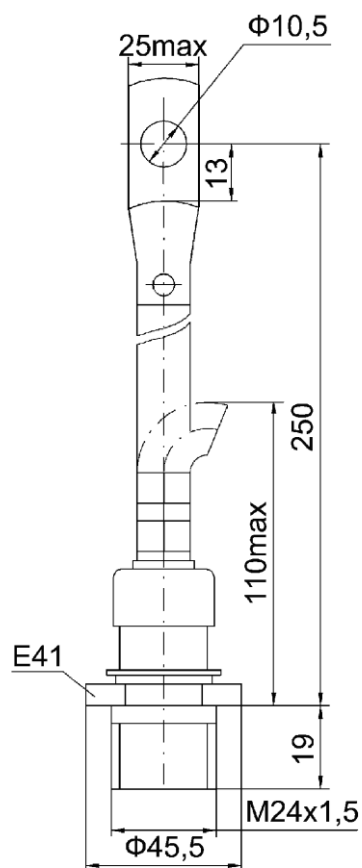
<ul style="list-style-type: none"> ◆ $V_{RRM} = \underline{2000 - 2600 V}$ ◆ $I_{F(AV)} = \underline{320 A}$ ($T_C = 123\text{ °C}$) ◆ $I_{FSM} = \underline{6,5 kA}$ ($T_j = 160\text{ °C}$) 			
<ul style="list-style-type: none"> ◆ Hermetic metal cases with ceramic insulators ◆ Pressure contact design ◆ Threaded studs of ISO ◆ Low dispersion Q_{rr} and V_{FM} for series and parallel connections 			
MAXIMUM RATED VALUES			
Parameter and conditions	Symbol	Values	Units
Repetitive peak reverse voltage, $T_j = -60 \dots + 160\text{ °C}$	V_{RRM}	2000-2600	V
Non- repetitive peak reverse voltage, $T_j = -60 \dots + 160\text{ °C}$	V_{RSM}	2100-2700	
Repetitive peak reverse current, $T_j = 160\text{ °C}$, $V_R = V_{RRM}$	I_{RRM}	50	mA
Maximum average forward current, $f = 50\text{ Hz}$, double side cooling, $T_C = 123\text{ °C}$	$I_{F(AV)}$	320	A
RMS forward current, $f = 50\text{ Hz}$, $T_C = 123\text{ °C}$	I_{FRMS}	502	
Surge non-repetitive current, $T_j = 160\text{ °C}$, $V_R = 0$, $t_p = 10\text{ ms}$	I_{FSM}	6,5	kA
Safety factor	I^2t	$0,211 \cdot 10^6$	A^2s
Operation junction temperature range	T_j	-60...+ 160	°C
Storage temperature range	T_{stg}	-60...+ 50	°C

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ELECTRICAL CHARACTERISTICS					
Parameter and conditions	Symbol	Values			Units
		min	typ.	max	
Maximum peak forward voltage, $T_j = 25\text{ °C}$, $I_F = 1000\text{ A}$	V_{FM}	-	-	1,33	V
On-state threshold voltage, $T_j = 160\text{ °C}$, $I_F = 500 - 1500\text{ A}$	$V_{F(TO)}$	-	-	0,92	
On-state slope resistance, $T_j = 160\text{ °C}$, $I_F = 500 - 1500\text{ A}$	r_T	-	-	0,45	mΩ
THERMAL PARAMETERS					
Thermal resistance junction to case	$R_{th(j-c)}$	-	-	0,090	°C/W
Thermal resistance case to heatsink	$R_{th(c-h)}$	-	-	0,03	
MECHANICAL PARAMETERS					
Weight	w	-	0,465	-	kg
Mounting torque	M_d	25	-	35	Nm
Maximum acceleration (at nominal mounting torque)	a	-	-	50	m/s ²
Cathode-anode distance on insulator surface	D_s	-	19	-	mm



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C – Cathode, A – Anode

Device Outline Drawing
(dimensions in mm)



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