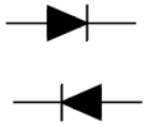
RECTIFIER DIODE

D141-100, D141-100X

- V_{RRM} = **300 - 1600 V**
- $I_{F(AV)}$ = **100 A** (T_C = 135 °C)
- I_{FSM} = **2,2 kA** (D141-100, T_j = 190 °C)
- I_{FSM} = **2,0 kA** (D141-100X, T_j = 190 °C)



- 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
- Direct and revers polarity
- Simple creation of rectifiers on heatsink

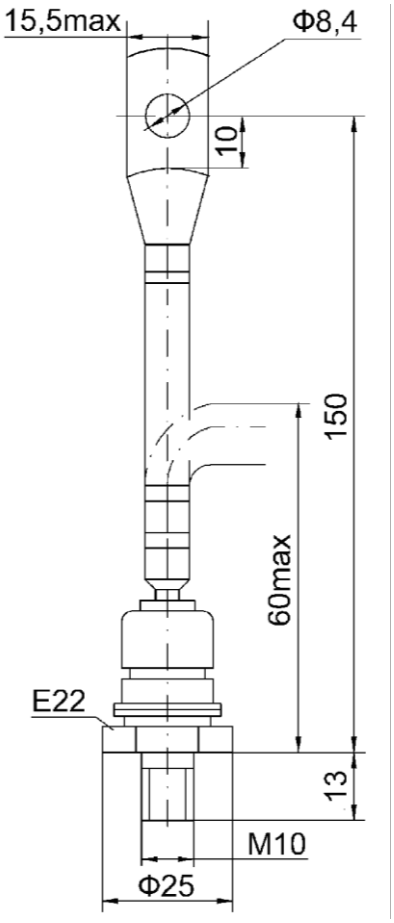
MAXIMUM RATED VALUES

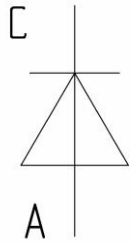
Parameter and conditions	Symbol	Values	Units
Repetitive peak reverse voltage, T_j = -60 …+ 190 °C	V_{RRM}	300-1600	V
Non- repetitive peak reverse voltage, T_j = -60 …+ 190 °C	V_{RSM}	400-1700	
Repetitive peak reverse current, T_j = 190 °C, $V_R = V_{RRM}$	I_{RRM}	20	mA
Maximum average forward current, f = 50 Hz, double side cooling, T_C = 135 °C	$I_{F(AV)}$	100	A
RMS forward current, f = 50 Hz, T_C = 135 °C	I_{FRMS}	157	
Surge non-repetitive current, T_j = 190 °C, V_R = 0, t_p = 10 ms D141-100 D141-100X	I_{FSM}	 2,2 2,0	kA
Safety factor D141-100 D141-100X	I^2t	 $0{,}024 \cdot 10^6$ $0{,}020 \cdot 10^6$	A^2s
Operation junction temperature range	T_j	-60…+ 190	°C
Storage temperature range	T_{stg}	-60…+ 50	°C

D141-100, D141-100X

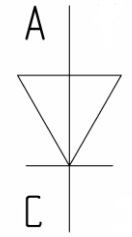
ELECTRICAL CHARACTERISTICS					
Parameter and conditions	**Symbol**	**Values**			**Units**
		min	**typ**	**max**	
Maximum peak forward voltage, T_j = 25 °C, I_F = 314 A D141-100 D141-100X	V_{FM}	-	-	 1,35 1,45	V
On-state threshold voltage, T_j = 190 °C, I_F = 150 - 500 A	$V_{F(TO)}$	-	-	0,95	
On-state slope resistance, T_j = 190 °C, I_F = 150 - 500 A	r_T	-	-	1,60	mΩ
Recovery charge, T_j = 190 °C, I_F = 100 A, di_F/dt = - 5 A/µs, $V_R \geq$ 100 V	Q_{rr}	-	-	400	µAs
Recovery current, T_j = 190 °C, I_F = 100 A, di_F/dt = - 5 A/µs, $V_R \geq$ 100 V	I_{rr}	-	-	53	A
THERMAL PARAMETERS					
Thermal resistance junction to case	$R_{th(j-c)}$	-	-	0,4	°C/W
Thermal resistance case to heatsink	$R_{th(c-h)}$	-	-	0,10	
MECHANICAL PARAMETERS					
Weight	w	-	0,09	-	kg
Mounting torque	M_d	6	-	10	Nm
Maximum acceleration (at nominal mounting torque)	a	-	-	50	m/s^2
Cathode-anode distance on insulator surface	D_s	-	13	-	mm

D141-100, 100X





D141-100



D141-100X

C – Cathode, A – Anode

Device Outline Drawing

(dimensions in mm)

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