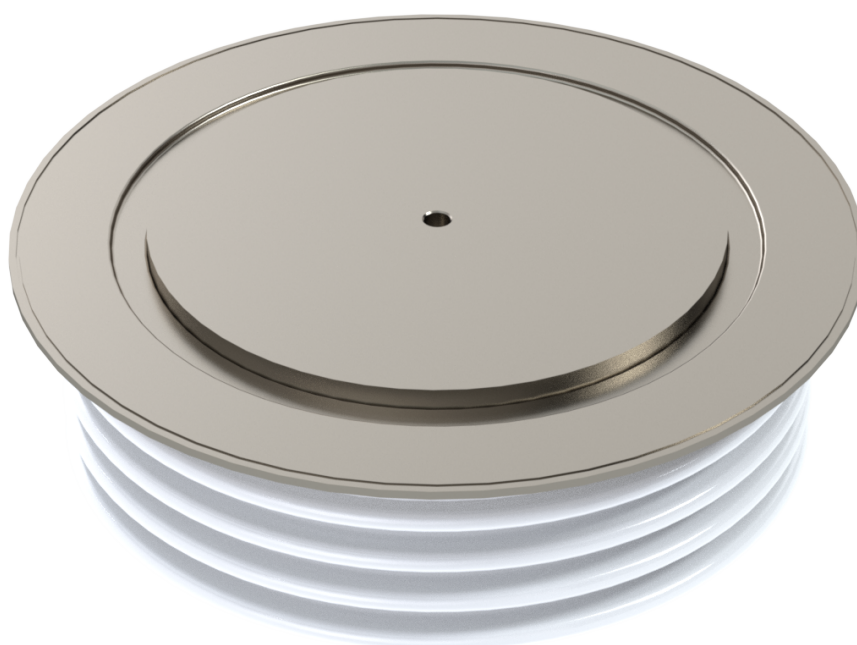


Rectifier Diode Type SA30MP5092J0

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Date: April, 2020
Data Sheet Issue: 1



ORDERING INFORMATION

(Please quote 12 to 15 digit code as below)

SA	30	MP	5092	J	0	
MP = standard capsule						
-	Voltage Code	MG = rupture rated capsule	Current code	Type code	Special code	Optional code
ML = extended rupture rated capsule						

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Absolute Maximum Ratings

VOLTAGE RATINGS		MAXIMUM LIMITS	UNITS
V_{RRM}	Repetitive peak reverse voltage, (note 1)	3000	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	3100	V
V_{RDC}	Maximum reverse D.C. Voltage, (note 1)	1700	V
note 1)	De-Rating factor of 0.13% per °C is applicable for T_j below 25°C		

OTHER RATINGS		MAXIMUM LIMITS	UNITS
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 55^{\circ}C$, (note 1)	5092	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 1)	3494	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 2)	2114	A
$I_{F(RMS)}$	Nominal RMS forward current, $T_{sink} = 25^{\circ}C$ (note 1)	9405	A
$I_{f(d.c.)}$	D.C. forward current, $T_{sink} = 25^{\circ}C$ (note 3)	6765	A
I_{FSM}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	58.0	kA
I_{FSM2}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	63.8	kA
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	$16.8 \cdot 10^6$	A ² s
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	$20.4 \cdot 10^6$	A ² s
T_{jop}	Operating temperature range	-40 to +160	°C
T_{stg}	Storage temperature range	-40 to +160	°C
note 1)	Double-side cooled, single phase, 50Hz, 180° half-sinewave.		
note 2)	Single-side cooled, single phase, 50Hz, 180° half-sinewave.		
note 3)	Double-side cooled.		
note 4)	Half-sinewave, 160°C T_j initial.		

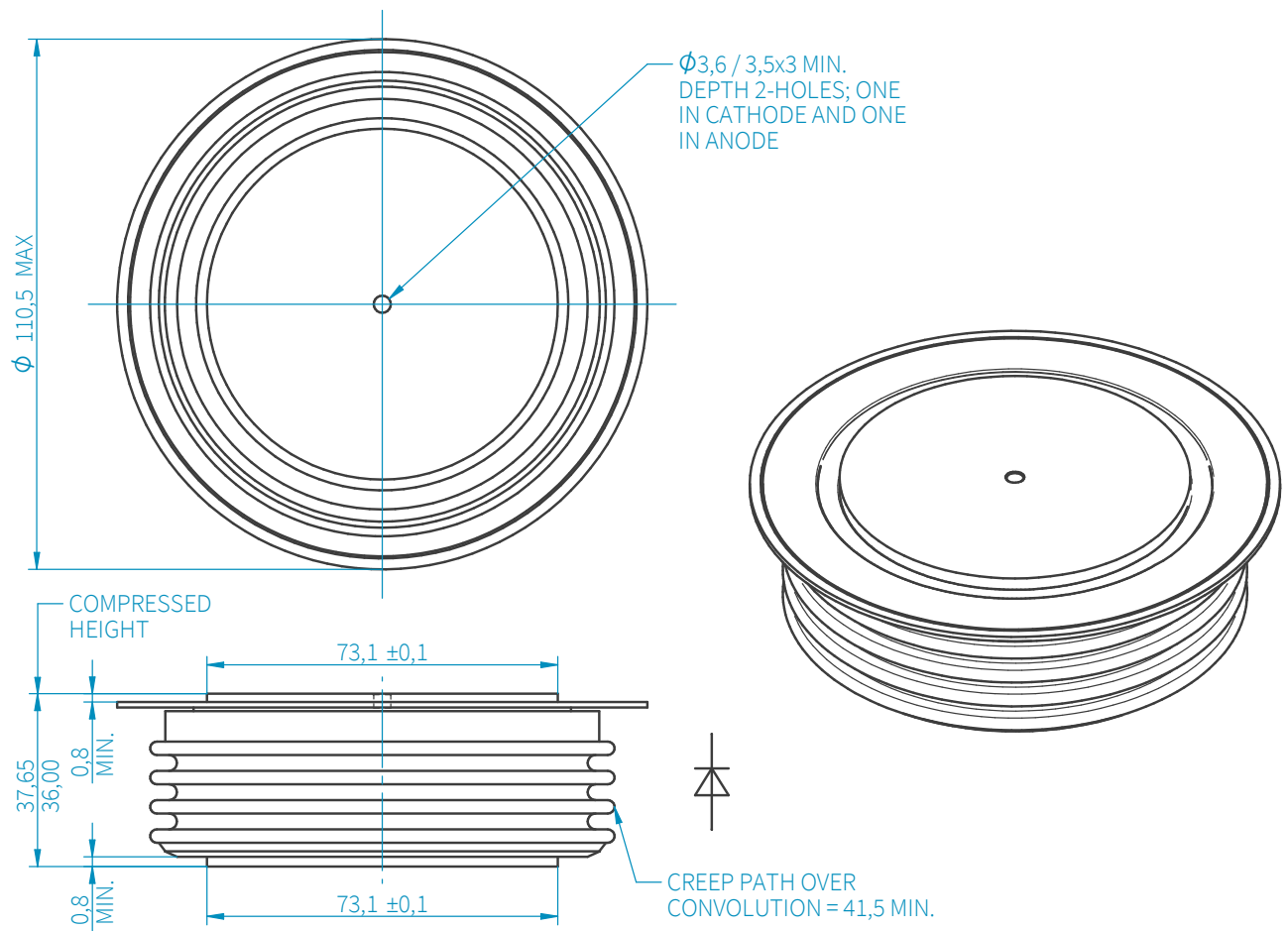
Characteristics

PARAMETER		TEST CONDITIONS	MIN	TYP	MAX	UNITS
V _{FM}	Maximum peak forward voltage	I _{FM} =6000A	-	-	1.35	V
		I _{FM} =15300A	-	-	1.97	V
V _{T0}	Threshold Voltage		-	-	0.874	V
r _T	Slope resistance		-	-	0.0794	mΩ
I _{RRM}	Peak reverse current	Rated V _{RRM}	-	-	150	mA
		Rated V _{RRM} , T _j = 25°C	-	-	150	mA
R _{thJK}	Thermal resistance, junction to heatsink	Double side cooled	-	-	0.011	K/W
		Single side cooled	-	-	0.022	K/W
F	Mounting force	note 2)	27	-	47	kN
W _t	Weight		-	1700	-	g
note 1)	Unless otherwise indicated T _j = 160°C					
note 2)	For other clamp forces consult factory					

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Outline Drawing



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SANCONA GmbH

An der Hebemärchte 26
D-04316 Leipzig

// ☎ +49 341 652355-0
 ☎ +49 341 652355-99
 ✉ info@sancona.com
 🌐 www.sancona.com

// Registry Court: Leipzig HRB 32946
 VAT Reg No.: DE308741810
 Tax number: 232/118/085686

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