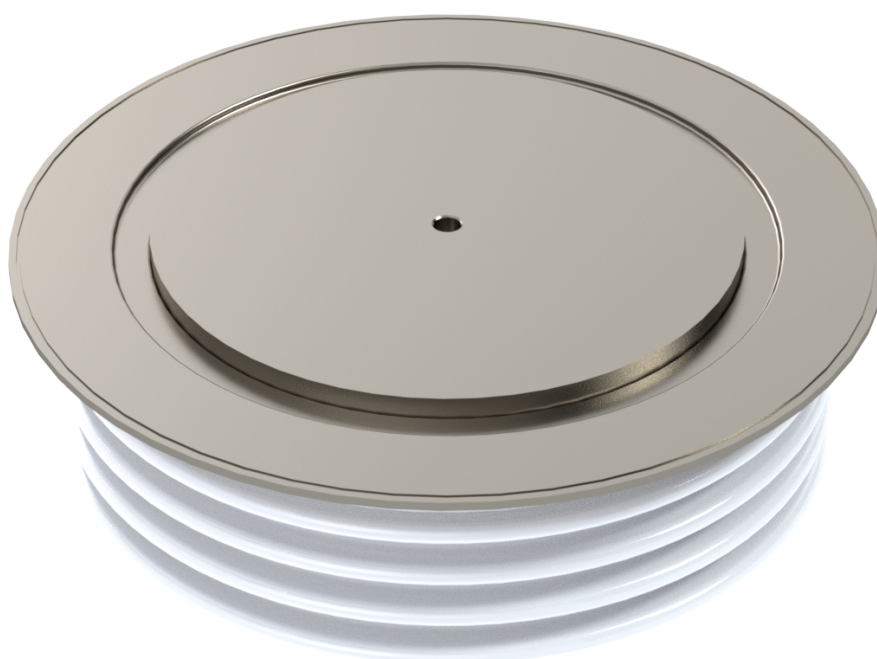


Fast Recovery Diode Type SA34MG2698Z0

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Date: February, 2020
Data Sheet Issue: 1



ORDERING INFORMATION				(Please quote 12 to 15 digit code as below)		
SA	34	MG	2698	Z	0	
-	Voltage Code	MP : standard capsule MG : rupture rated capsule ML : extended rupture rated capsule	Current code	Type code	Special code	Optional code

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Absolute Maximum Ratings

VOLTAGE RATINGS		MAXIMUM LIMITS	UNITS
V_{RRM}	Repetitive peak reverse voltage, (note 1)	3400	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	3500	V
V_{RDC}	Maximum reverse D.C. Voltage, (note 1)	1850	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)	2698	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 1)	1825	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 2)	1165	A
$I_{F(RMS)}$	Nominal RMS forward current, $T_{sink} = 25^{\circ}C$ (note 1)	4979	A
$I_{f(d.c.)}$	D.C. forward current, $T_{sink} = 25^{\circ}C$ (note 3)	4545	A
I_{FSM}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	27.8	kA
I_{FSM2}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	30.6	kA
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	$3.86 \cdot 10^6$	A ² s
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	$4.68 \cdot 10^6$	A ² s
T_{jop}	Operating temperature range	-40 to +150	°C
T_{stg}	Storage temperature range	-40 to +150	°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, 150°C T_j initial.		

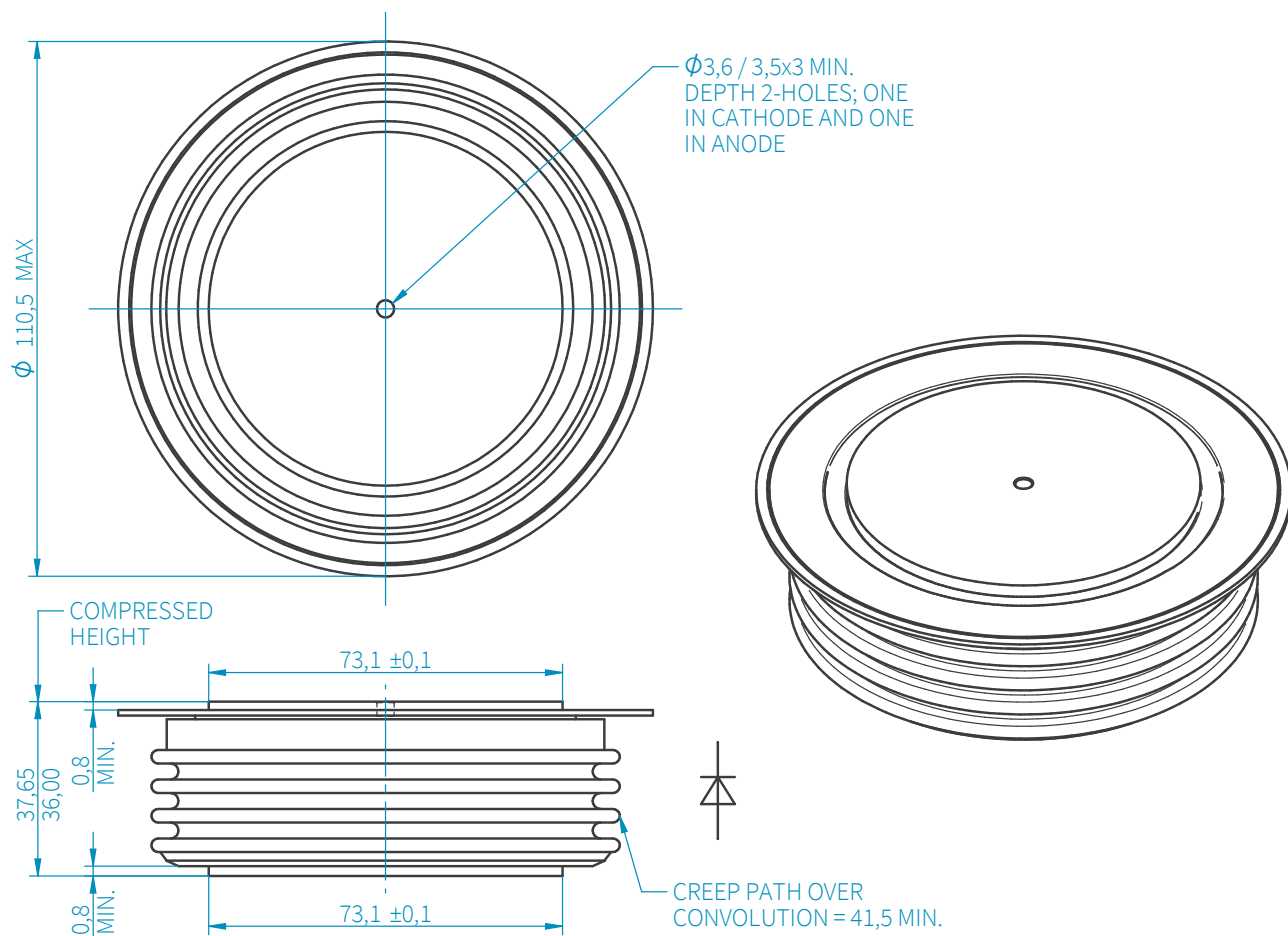
Characteristics

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V _{FM}	Maximum peak forward voltage	I _{FM} =6000A	-	-	3.0 V
		I _{FM} =5400A	-	-	2.9 V
V _{T0}	Threshold Voltage	-	-	1.00	V
r _T	Slope resistance	-	-	0.33	mΩ
V _{FRM}	Maximum forward recovery voltage	di/dt = 1000A/μs, T _j = 25°C	-	-	20 V
		di/dt = 1000A/μs	-	-	45 V
I _{RRM}	Peak reverse current	Rated V _{RRM}	-	-	150 mA
Q _{rr}	Recovered charge		-	1200	- μC
Q _{ra}	Recovered charge, 50% Chord	I _{FM} = 1000A, t _p = 1000μs,	-	620	800 μC
I _{rm}	Reverse recovery current	di/dt = 60A/μs, V _R = 50V,	-	200	- A
t _{rr}	Reverse recovery time, 50% Chord	50% Chord.	-	6.2	- μs
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)	37	-	47 kN
W _t	Weight		-	1700	- g
note 1)	Unless otherwise indicated T _j = 150°C				
note 2)	For other clamp forces consult factory				

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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
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