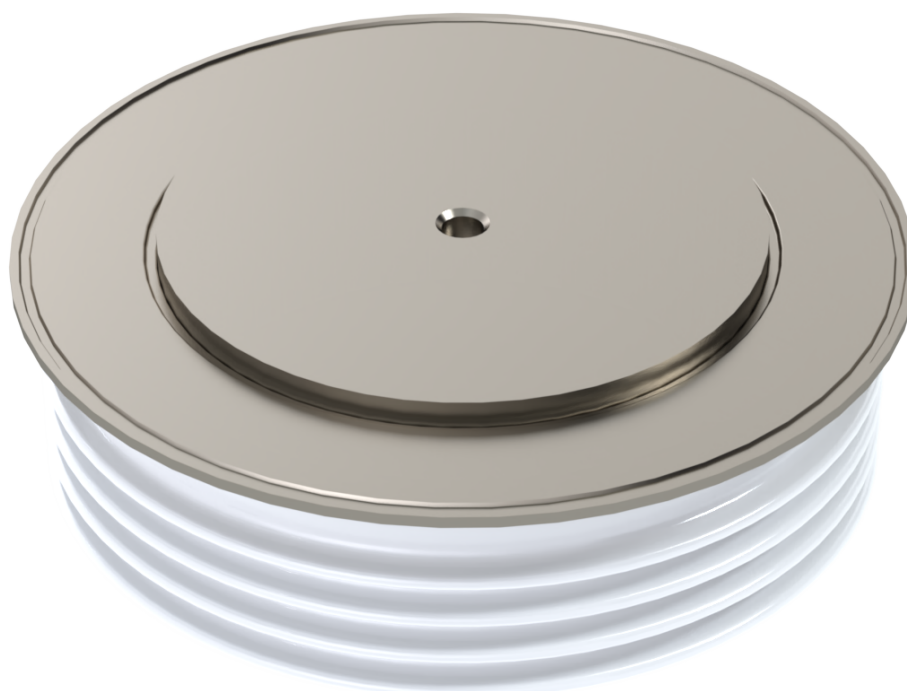


**Rectifier
Diode
Type SA44ZP3082J0**

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Date: March, 2020
Data Sheet Issue: 1



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SA	44	ZP	3082	J	0	
-	Voltage Code	Outline Code	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)	4400	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	4500	V
V_{RDC}	Maximum reverse D.C. Voltage, (note 1)	2950	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)	3120	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 1)	2185	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^{\circ}C$, (note 2)	1308	A
$I_{F(RMS)}$	Nominal RMS forward current, $T_{sink} = 25^{\circ}C$ (note 1)	5716	A
$I_{f(d.c.)}$	D.C. forward current, $T_{sink} = 25^{\circ}C$ (note 3)	5080	A
I_{FSM}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	26.0	kA
I_{FSM2}	Peak non-repetitive surge current $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	28.6	kA
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} = 60\%V_{RRM}$, (note 4)	$3.38 \cdot 10^6$	A^2s
I^2t	I^2t capacity for fusing $t_p = 10ms$, $V_{RM} \leq 10V$, (note 4)	$4.09 \cdot 10^6$	A^2s
T_{jop}	Operating temperature range	-40 to +160	°C
T_{stg}	Storage temperature range	-55 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.		

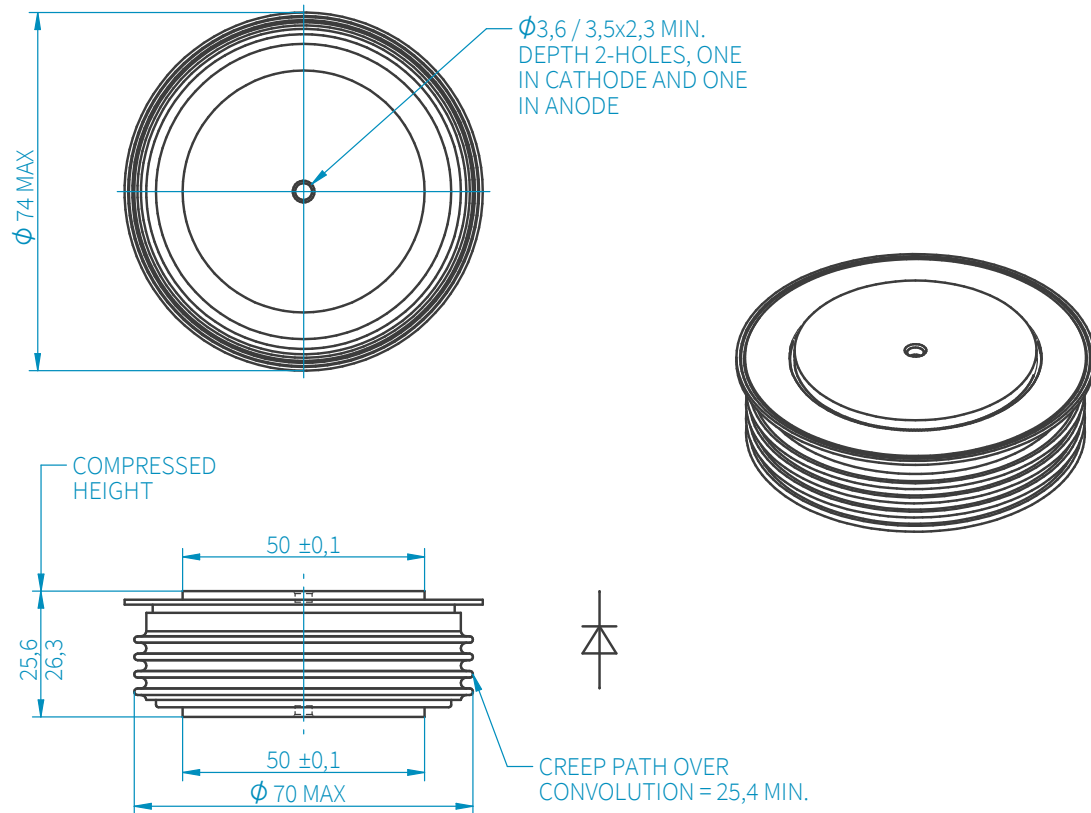
Characteristics

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V _{FM}	Maximum peak forward voltage	-	-	1.50	V
	I _{FM} =3000A I _{FM} =8600A			2.58	V
V _{T0}	Threshold Voltage	-	-	0.923	V
r _T	Slope resistance	-	-	0.192	mΩ
I _{RRM}	Peak reverse current	Rated V _{RRM}		-	-
Q _{rr}	Recovered charge	-	6800	7800	μC
Q _{ra}	Recovered charge, 50% Chord	-	4300	-	μC
I _{rm}	Reverse recovery current	-	190	-	A
t _{rr}	Reverse recovery time, 50% Chord	-	45	-	μs
R _{thJK}	Thermal resistance, junction to heatsink	Double side cooled		-	-
		Anode side cooled		-	-
		Cathode side cooled		-	-
F	Mounting force	note 2)		25	-
W _t	Weight	-	270	-	g
note 1)	Unless otherwise indicated T _j = 160°C				
note 2)	For other clamp forces consult factory				

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