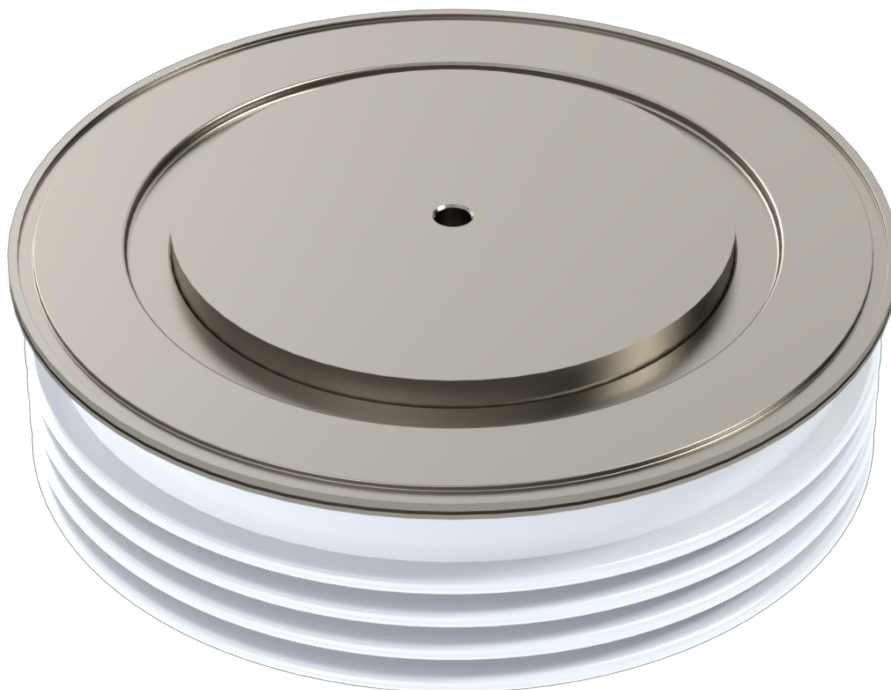


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## Absolute Maximum Ratings

VOLTAGE RATINGS		MAXIMUM LIMITS	UNITS
$V_{RRM}$	Repetitive peak reverse voltage, (note 1)	1200	V
$V_{RSM}$	Non-repetitive peak reverse voltage, (note 1)	1300	V
$V_{RDC}$	Maximum reverse D.C. Voltage, (note 1)	600	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, $T_{sink} = 55^\circ\text{C}$ , (note 1)	1326	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^\circ\text{C}$ , (note 1)	605	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink} = 100^\circ\text{C}$ , (note 2)	337	A
$I_{F(RMS)}$	Nominal RMS forward current, $T_{sink} = 25^\circ\text{C}$ (note 1)	2673	A
$I_{f(d.c.)}$	D.C. forward current, $T_{sink} = 25^\circ\text{C}$ (note 3)	2186	A
$I_{FSM}$	Peak non-repetitive surge current $t_p = 10\text{ms}$ , $V_{RM} = 60\%V_{RRM}$ , (note 4)	20	kA
$I_{FSM2}$	Peak non-repetitive surge current $t_p = 10\text{ms}$ , $V_{RM} \leq 10\text{V}$ , (note 4)	22	kA
$I^2t$	$I^2t$ capacity for fusing $t_p = 10\text{ms}$ , $V_{RM} = 60\%V_{RRM}$ , (note 4)	$2.0 \cdot 10^6$	$\text{A}^2\text{s}$
$I^2t$	$I^2t$ capacity for fusing $t_p = 10\text{ms}$ , $V_{RM} \leq 10\text{V}$ , (note 4)	$2.42 \cdot 10^6$	$\text{A}^2\text{s}$
$T_{jop}$	Operating temperature range	-40 to +125	°C
$T_{stg}$	Storage temperature range	-40 to +150	°C
note 1)	De-rating factor of 0.13% per °C is applicable for $T_j$ below 25°C.		
note 2)	Double-side cooled, single phase, 50Hz, 180° half-sinewave.		
note 3)	Single-side cooled, single phase, 50Hz, 180° half-sinewave.		
note 4)	Double-side cooled.		
note 5)	Half-sinewave, 125°C $T_j$ initial.		

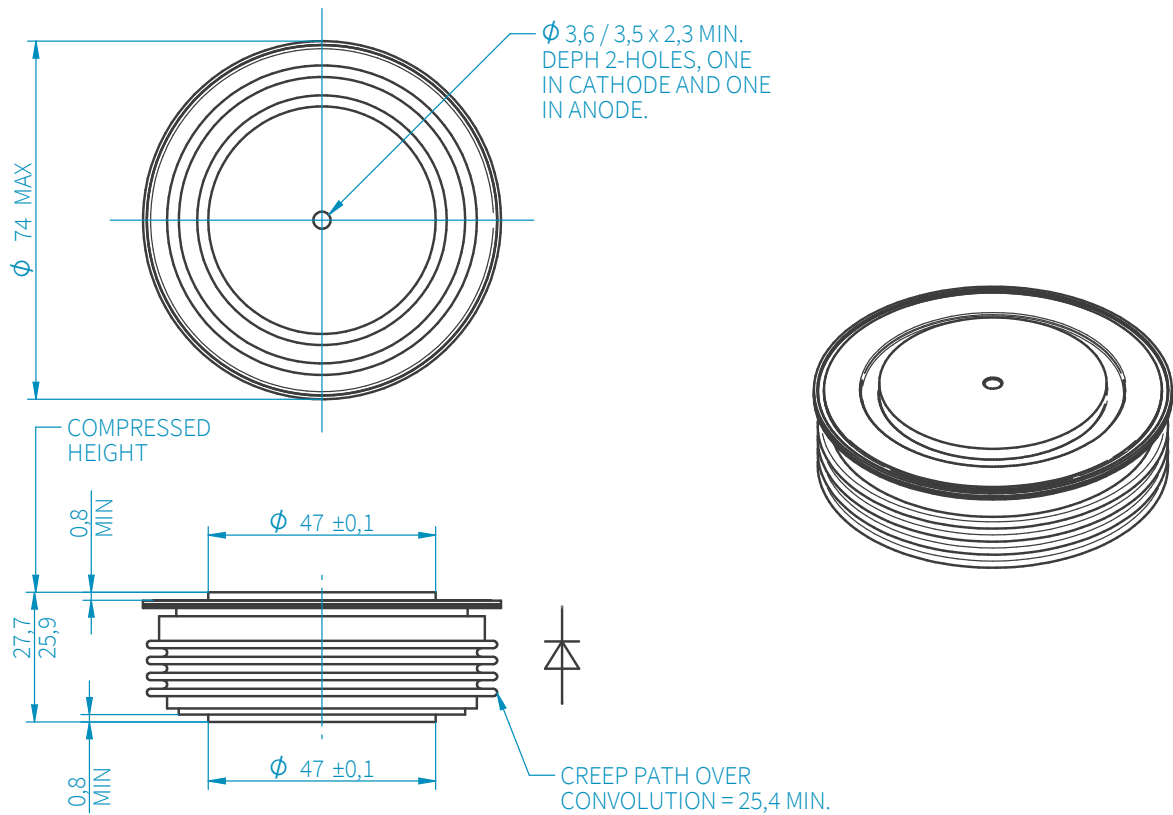
## Characteristics

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS	
V <sub>FM</sub>	Maximum peak forward voltage	I <sub>FM</sub> =1000A	-	-	1.55 V	
		I <sub>FM</sub> =1600A	-	-	1.77 V	
V <sub>0</sub>	Threshold Voltage	Over current range	-	-	1.32 V	
r <sub>s</sub>	Slope resistance	1326-3978A (Note 2)	-	-	0.268 mΩ	
V <sub>01</sub>	Threshold Voltage	Over current Range	-	-	1.373 V	
r <sub>s1</sub>	Slope resistance	1600-4800A	-	-	0.247 mΩ	
V <sub>FRM</sub>	Maximum forward recovery voltage	di/dt = 1000A/μs, 25°C	-	-	20 V	
		di/dt = 1000A/μs	-	-	30 V	
I <sub>RRM</sub>	Peak reverse current	Rated V <sub>RRM</sub>	-	-	275 mA	
		Rated V <sub>RRM</sub> , T <sub>j</sub> =25°C	-	-	50 mA	
Q <sub>rr</sub>	Recovered charge		-	50	μC	
Q <sub>ra</sub>	Recovered charge, 50% Chord	I <sub>FM</sub> = 1000A, t <sub>p</sub> = 1000μs, di/dt = 60A/μs, V <sub>R</sub> = 50V (note 3)	-	20	30	μC
I <sub>rm</sub>	Reverse recovery current		-	35	-	A
t <sub>rr</sub>	Reverse recovery time, 50% Chord		-	1.0	-	μs
Q <sub>rr</sub>	Recovered charge		-	700	-	μC
Q <sub>ra</sub>	Recovered charge, 50% Chord	I <sub>FM</sub> = 1600A, t <sub>p</sub> = 500μs, di/dt = 800A/μs, V <sub>R</sub> = 800V	-	550	-	μC
I <sub>rm</sub>	Reverse recovery current		-	480	-	A
t <sub>rr</sub>	Reverse recovery time, 50% Chord		-	2.3	-	μs
R <sub>thJK</sub>	Thermal resistance, junction to sink	Double side cooled	-	-	0.024	K/W
		Single side cooled	-	-	0.048	K/W
F	Mounting force	(note 4)	19	-	26	kN
W <sub>t</sub>	Weight		-	510	-	g
note 1)	Unless otherwise indicated T <sub>j</sub> = 125°C					
note 2)	V <sub>0</sub> and r <sub>s</sub> were used to calculate the current ratings illustrated on page 2					
note 3)	Figures 3 to 6 were compiled using these conditions					
note 4)	For other clamping forces, consult factory.					

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## Outline Drawing



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