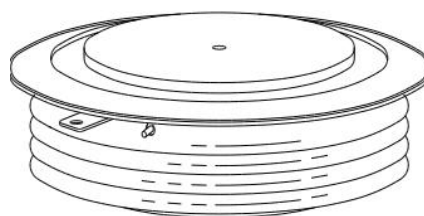


Phase Control Thyristors

FEATURES

- Full diffusion process
- High frequency operation
- Low forward voltage drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- High power converters
- Phase controlled rectifying

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{RRM}	Repetitive Peak Reverse Voltage		3500	V
V_{DRM}	Repetitive Peak Forward Blocking Voltage		3500	V
$I_{T(AV)}$	Average Forward Current	Half-sine wave, 180° conduction, $T_c=88^{\circ}\text{C}$	800	A
$I_{T(RMS)}$	RMS on-state current	$T_c=88^{\circ}\text{C}$	1256	A
I_{TSM}	Surge on-state current	10 ms, sinusoidal wave shape, 180° conduction, $T_j = 125^{\circ}\text{C}$	14	KA
I^2t	I^2t for fusing	10 ms, sinusoidal wave shape	980	KA ² S
T_j	Junction Temperature		-40~125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range		-40~140	$^{\circ}\text{C}$

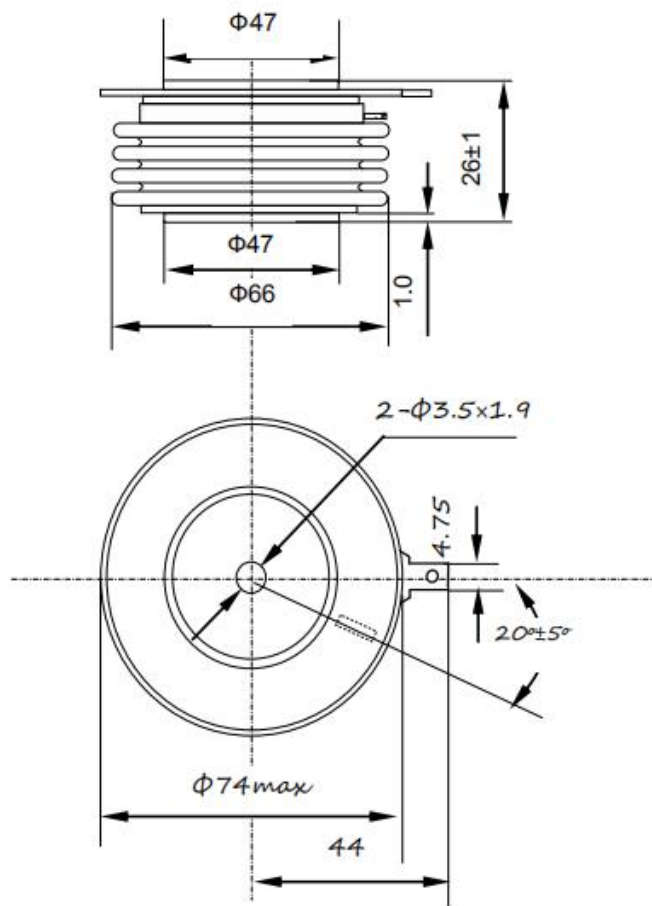
THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	0.023	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{TM}	Forward Voltage Drop	$I_{TM} = 2512\text{ A}$	2.05	V
I_{DRM} I_{RRM}	peak reverse and off-state leakage current	$V_D=V_{DRM}$ $V_R=V_{RRM}$	100	mA
I_{GT}	DC gate current required to trigger	$V_D=12\text{ V}, T_j = 25^{\circ}\text{C}$	200	mA
V_{GT}	DC gate voltage required to trigger	$V_D=12\text{ V}, T_j = 25^{\circ}\text{C}$	4.5	V
t_q	Typical turn-off time	$I_{TM} = 1000\text{ A}, di/dt = 25\text{ A}/\mu\text{s}, V_R = 50\text{ V}, dV/dt = 30\text{ V}/\mu\text{s}, T_j = 125^{\circ}\text{C}$	350	μs

OUTLINE PACKAGE



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