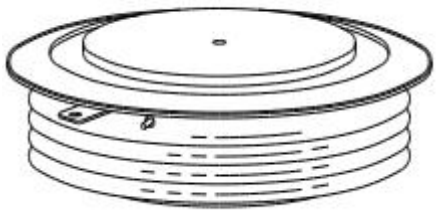
T2180N

Phase Control Thyristors

FEATURES

- Low on-state voltage
- High capability for dV/dt
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Power supplies
- Motor control

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	T2180N				UNIT
		12	14	16	18	
V_{RRM}	Repetitive Peak Reverse Voltage	1200	1400	1600	1800	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	1200	1400	1600	1800	V

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$I_{T(AV)}$	Average Forward Current	Sinewave,180° conduction,T_c=75℃	2180	A
$I_{T(RMS)}$	Maximum RMS on-state current	T_c=75℃	3422	A
I_{TSM}	Max. peak, one-cycle forward, non-repetitive surge current	10 ms, sinusoidal wave shape, 180° conduction, Tj = 125℃	32000	A
$P_{G(AV)}$	Average gate power dissipation		5	W
T_J	Junction Temperature		-40~125	℃
T_{stg}	Storage Temperature Range		-40~140	℃

THERMAL CHARACTERISTICS

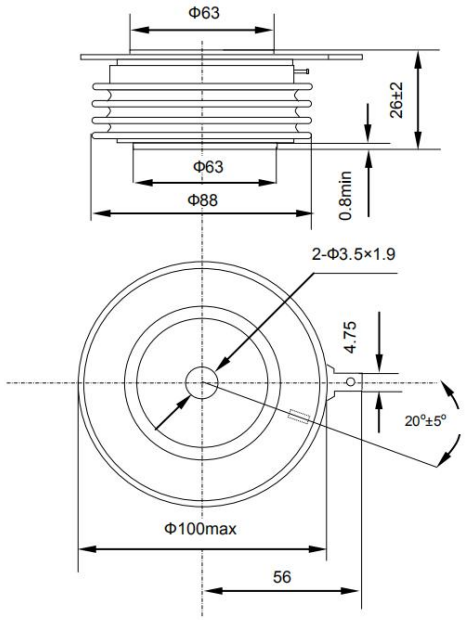
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.014	℃/W

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYPE	MAX	UNIT
V_{TM}	Forward Voltage Drop	I_{TM}=2000A; T_J = 125 ℃		1.11	V
I_{RRM}	Max. peak reverse and off-state leakage current	T_J = 125℃; V_R=V_{RRM}		250	mA
I_{GT}	DC gate current required to trigger	V_D = 12 V;T_J = 25 ℃		200	mA
V_{GT}	DC gate voltage required to trigger	V_D = 12 V;T_J = 25 ℃		3	V
t_q	Typical turn-off time	I_{TM} >1000A, T_J = 125℃, di/dt = 25A/μs, V_R=50 V, dv/dt = 30V/μs		500	μs

PACKAGE OUTLINE

Dimensions in mm (1mm = 0.0394“)



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