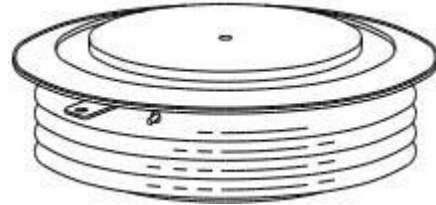


### FEATURES

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

### APPLICATIONS

- Power supplies
- Motor control
- Light dimmers



### ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{RRM}$	Repetitive Peak Reverse Voltage		1600	V
$I_{T(AV)}$	Average Forward Current	Sinewave, 180° conduction, $T_c=65^\circ\text{C}$	1200	A
$I_{T(RMS)}$	Maximum RMS on-state current		1880	A
$I_{TSM}$	Max. peak, one-cycle forward, non-repetitive surge current	8.3 msec (60Hz), sinusoidal wave shape, 180° conduction, $T_j = 125^\circ\text{C}$	28500	A
		10 msec (50Hz), sinusoidal wave shape, 180° conduction, $T_j = 125^\circ\text{C}$	26000	
$P_{G(AV)}$	Average gate power dissipation		5	W
$T_j$	Junction Temperature		-40~125	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range		-40~150	$^\circ\text{C}$

### THERMAL CHARACTERISTICS

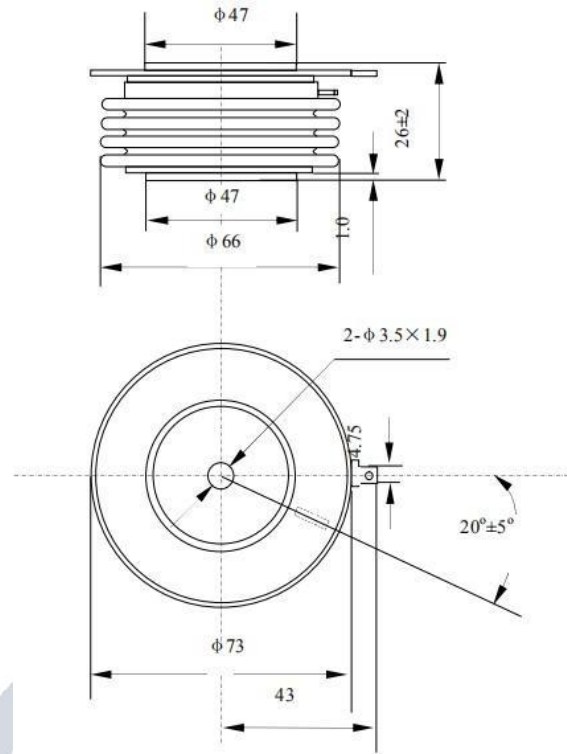
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.025	$^\circ\text{C}/\text{W}$

### ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYPE	MAX	UNIT
$V_{TM}$	Forward Voltage Drop	$I_{TM}=1600\text{A}$ , $T_j = 25^\circ\text{C}$		1.35	V
$I_{DRM}$ $I_{RRM}$	Max. peak reverse and off-state leakage current	$T_j = 125^\circ\text{C}$ , rated $V_{DRM}/V_{RRM}$ applied		75	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	$V_D = 12\text{V}$ ; $T_j = 25^\circ\text{C}$		3	V
$t_q$	Typical turn-off time	$I_{TM} > 1000\text{A}$ , $T_j = 125^\circ\text{C}$ , $di/dt = 25\text{A}/\mu\text{s}$ , $V_R \geq 5\text{V}$ , $dv/dt = 20\text{V}/\mu\text{s}$ , Duty cycle $\geq 0.01\%$		250	$\mu\text{s}$

### PACKAGE OUTLINE

Dimensions in mm (1mm = 0.0394")



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