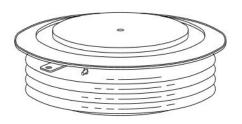


## **Phase Control Thyristors**

#### **FEATURES**

- · High frequency operation
- Low forward voltage drop
- · Low switching losses at high frequency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



#### **APPLICATIONS**

A range of extremely compact, encapsulated three phase bridge rectifiers offering efficient and reliable operation. They are intended for use in general purpose and heavy duty applications.

## **ABSOLUTE MAXIMUM RATINGS**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{RRM}$	Repetitive Peak Reverse Voltage		1400	V
$V_{DRM}$	Repetitive Peak Forward Blocking Voltage		1400	V
$I_{T(AV)}$	Average Forward Current	Sinewave,180° conduction,Tc=65°C	1800	A
I <sub>T(RMS)</sub>	RMS on-state current		2800	А
I <sub>TSM</sub>	Peak, one-cycle, non-repetitive surge current	10.0 ms (50Hz), sinusoidal wave shape, $180^{\circ}$ conduction, $T_j = 125^{\circ}C$	40000	А
T <sub>J</sub>	Junction Temperature		-40~125	$\mathbb{C}$
T <sub>stg</sub>	Storage Temperature Range		-40~150	$^{\circ}$

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case, Double sided cooled		°C/W



# **Phase Control Thyristors**

## **ELECTRICAL CHARACTERISTICS**

SYMBOL	PARAMETER	CONDITIONS	TYPE	MAX	UNIT
$V_{TM}$	Forward Voltage Drop	I <sub>TM</sub> = 3000 A,T <sub>J</sub> = 25 ℃		1.45	V
I <sub>DRM</sub> I <sub>RRM</sub>	peak reverse and off-state leakage current			25	mA
I <sub>GT</sub>	DC gate current required to trigger	$V_D$ =12V, $R_L$ =3 $\Omega$ , $T_J$ = 25 $^{\circ}$ C		150	mA
$V_{GT}$	DC gate voltage required to trigger	V <sub>D</sub> =12V, R <sub>L</sub> =3 Ω ,T <sub>J</sub> = 25 °C		3	V
tq	Typical turn-off time	I <sub>TM</sub> = 1000A, di/dt = 25A/μs,dV/dt = 30V/μs, T <sub>J</sub> = 125 °C,	125	250	μs

## **PACKAGE OUTLINE**

Dimensions in mm (1mm = 0.0394")

