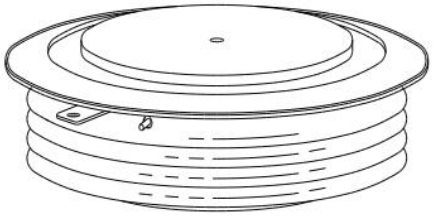
TA20141803DH

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℃	1800	A
$I_{T(RMS)}$	RMS on-state current		2800	A
I_{TSM}	Peak, one-cycle, non-repetitive surge current	10.0 ms (50Hz), sinusoidal wave shape, 180° conduction, T_j = 125℃	40000	A
T_J	Junction Temperature		-40~125	℃
T_{stg}	Storage Temperature Range		-40~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case,Double sided cooled	0.018	℃/W

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYPE	MAX	UNIT
V_{TM}	Forward Voltage Drop	I_{TM} = 3000 A,T_J = 25 ℃		1.45	V
I_{DRM} I_{RRM}	peak reverse and off-state leakage current			25	mA
I_{GT}	DC gate current required to trigger	V_D=12V, R_L =3Ω,T_J = 25 ℃		150	mA
V_{GT}	DC gate voltage required to trigger	V_D=12V, R_L =3Ω,T_J = 25 ℃		3	V
t_q	Typical turn-off time	I_{TM} = 1000A, di/dt = 25A/μs,dV/dt = 30V/μs, T_J = 125 ℃,	125	250	μs

PACKAGE OUTLINE

Dimensions in mm (1mm = 0.0394“)