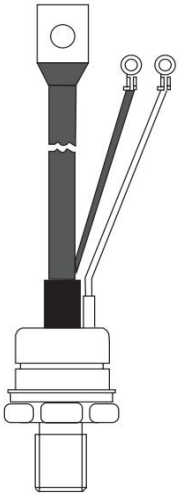
T600161804BT

Phase Control SCR

FEATURES

- High surge current capability
- Wide current range
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Battery charges
- Converters
- Power supplies
- Motor control

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS		VALUE	UNIT
V_{RRM}	Repetitive Peak Reverse Voltage			1600	V
$I_{F(AV)}$	Average Forward Current	T_C=120℃, 180° conduction, half sine wave		175	A
I_{FSM}	Surge Forward Current	t=10ms	No voltage reapplied	5700	A
		t=8.3ms		5970	
		t=10ms	100%V_{RRM} reapplied	4800	
		t=8.3ms		5000	
I^2t	I^2t for fusing	t=10ms	No voltage reapplied	163	KA_2s
		t=8.3ms		148	
		t=10ms	100%V_{RRM} reapplied	115	
		t=8.3ms		105	
T_J	Junction Temperature			-40~125	℃
T_{stg}	Storage Temperature Range			-40~150	℃

THERMAL CHARACTERISTICS

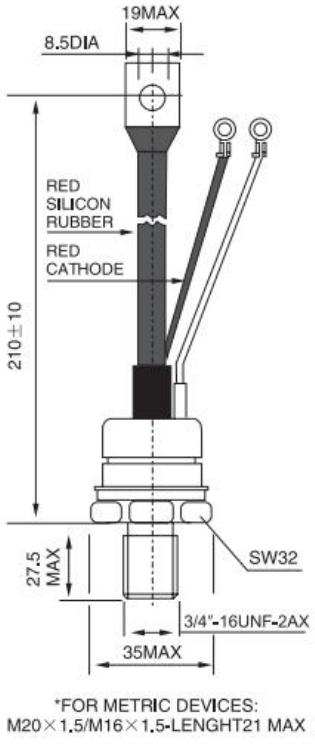
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.13	℃/W

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RM}=V_{RRM}$ $V_{DM}=V_{DRM}$	T_j=125℃		25	mA
I_{DRM}	Repetitive peak off-state current					
V_{TM}	On-state voltage	I_{TM}= 625A			1.55	V
I_{GT}	Gate-trigger current	V_D = 12 V;			150	mA
V_{GT}	Gate-trigger voltage	V_D = 12 V;			3	V

PACKAGE OUTLINE

Dimensions in mm (1mm = 0.0394“)



*FOR METRIC DEVICES:
M20×1.5/M16×1.5-LENGHT21 MAX

Case Style TO-93(ceramic)

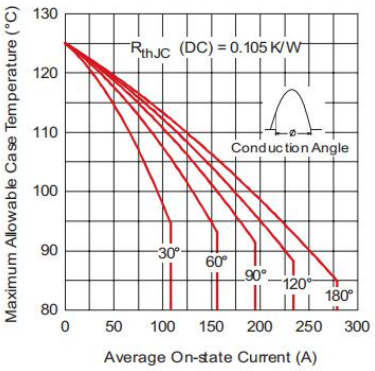


Fig. 1 - Current Ratings Characteristics

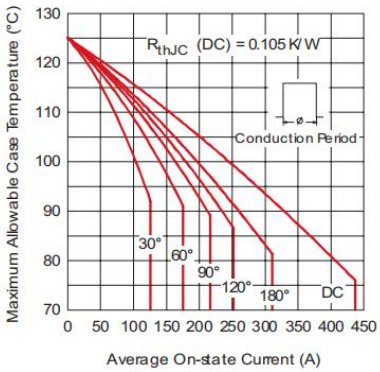


Fig. 2 - Current Ratings Characteristics

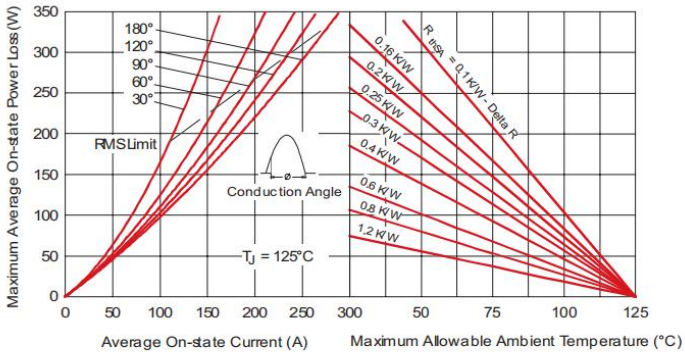


Fig. 3 - On-state Power Loss Characteristics

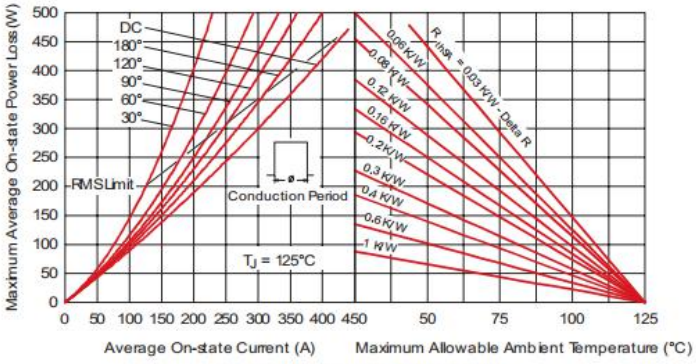


Fig. 4 - On-state Power Loss Characteristics

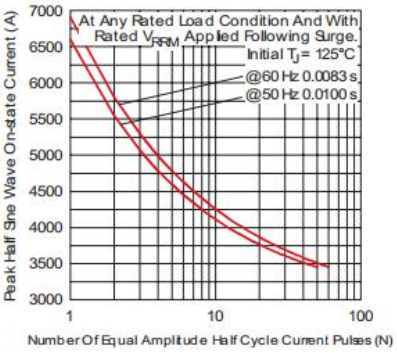


Fig. 5 - Maximum Non-Repetitive Surge Current

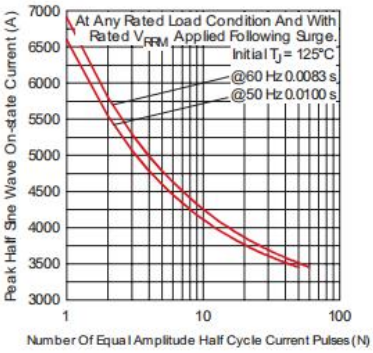


Fig. 6 - Maximum Non-Repetitive Surge Current