

### Features

- Full blocking capability over wide temperature range
- Hard soldered joints for high reliability

### Key Parameters

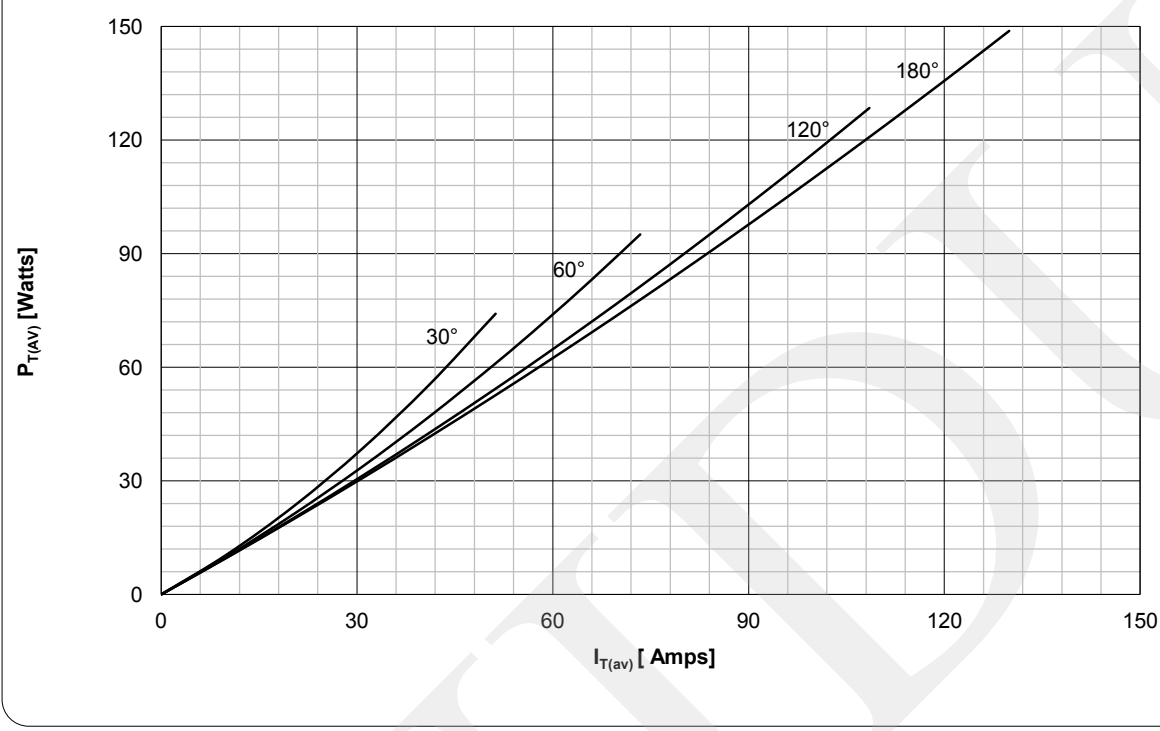
$V_{DRM} / V_{RRM}$	= 400V
$I_{T(AV)}$	= 130A
$I_{TSM}$	= 3300A
$V_{T(TO)}$	= 0.95V
$r_T$	= 0.61mΩ

### Applications

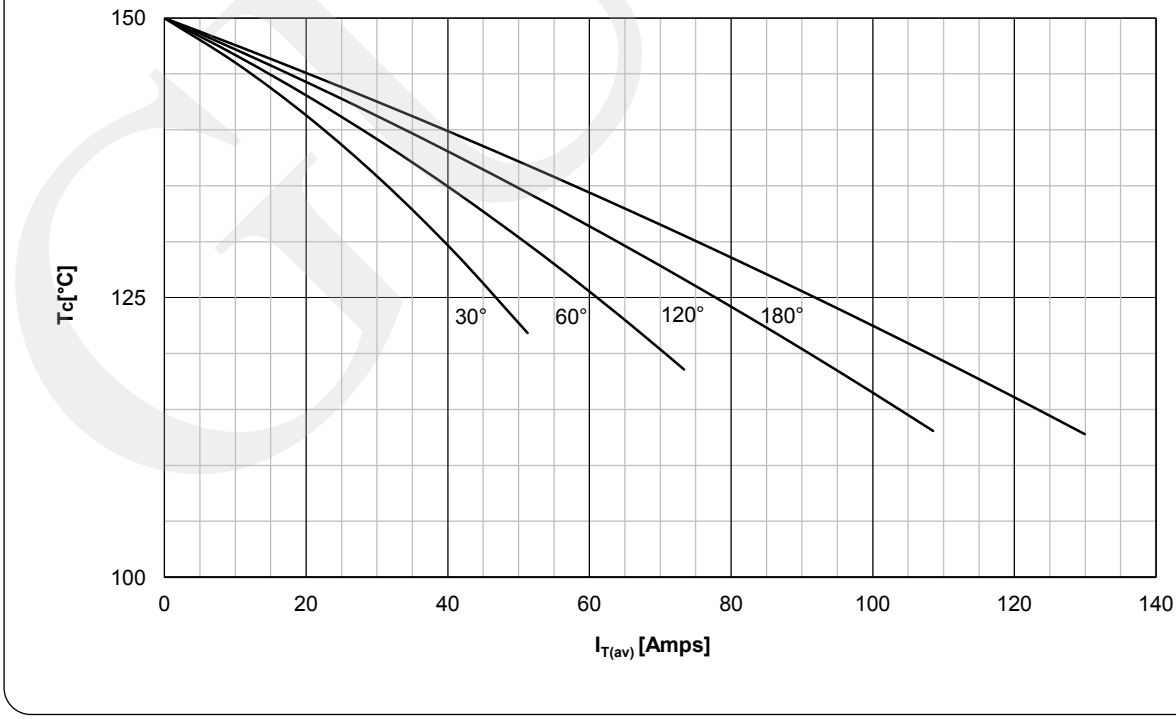
- Power Supplies
- DC motor control
- Controlled Rectifiers

Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		150	200 - 400	V
V <sub>DRM</sub>	Repetitive peak off-state voltage		150	200 - 400	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	150	30	mA
I <sub>DRM</sub>	Repetitive peak off-state current	V = V <sub>DRM</sub>	150	30	mA
<b>CONDUCTING</b>					
I <sub>T(AV)</sub>	Mean on-state current	180° sin ,50 Hz, T <sub>CASE</sub> =112°C		130	A
I <sub>RMS</sub>	RMS on-state current			204	A
I <sub>TSM</sub>	Surge on-state current	Sine wave, 10 ms Without reverse voltage	25	3300	A
			150	3200	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	54450	A <sup>2</sup> s
			150	51200	A <sup>2</sup> s
V <sub>T</sub>	On-state voltage	On-state current = 410A	25	1.20	V
V <sub>T(TO)</sub>	Threshold voltage		150	0.95	V
r <sub>T</sub>	On-state slope resistance		150	0.61	mΩ
<b>SWITCHING</b>					
di/dt	Critical rate of rise of on-state current		150	50	A/μs
dv/dt	Critical rate of rise of off-state voltage	V <sub>DR</sub> = 67%V <sub>DRM</sub>	150	50	V/μs
<b>GATE</b>					
I <sub>gt</sub>	Gate trigger current	V <sub>D</sub> =5V	25	150	mA
I <sub>H</sub>	Holding current	V <sub>D</sub> =5V, gate open circuit	25	100	mA
I <sub>L</sub>	Latching current	V <sub>D</sub> =5V	25	400	mA
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, 180° sine	Junction to case, per chip		0.20	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, per module		0.03	°C/W
T <sub>j</sub>	Max. junction temperature			150	°C
T <sub>stg</sub>	Storage temperature			-40 .... 125	°C
M1	Mounting torque			3 - 5	Nm
M2	Terminal connection torque			2.5	Nm
	Weight			170	g

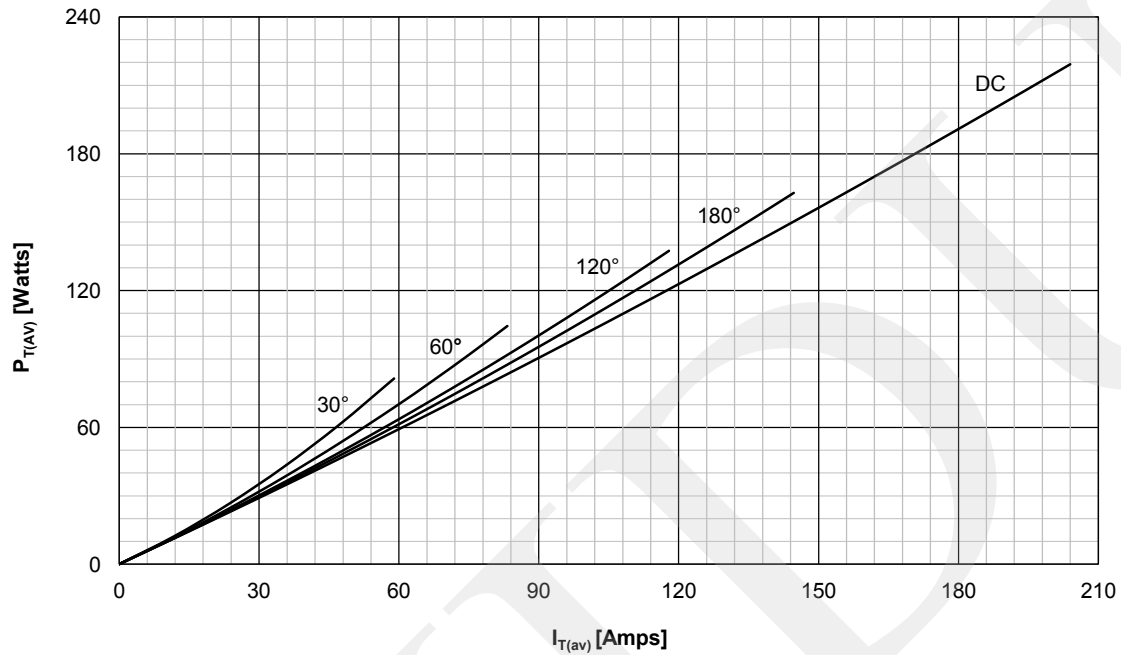
DISSIPATION CHARACTERISTICS PER ARM  
SINE WAVE



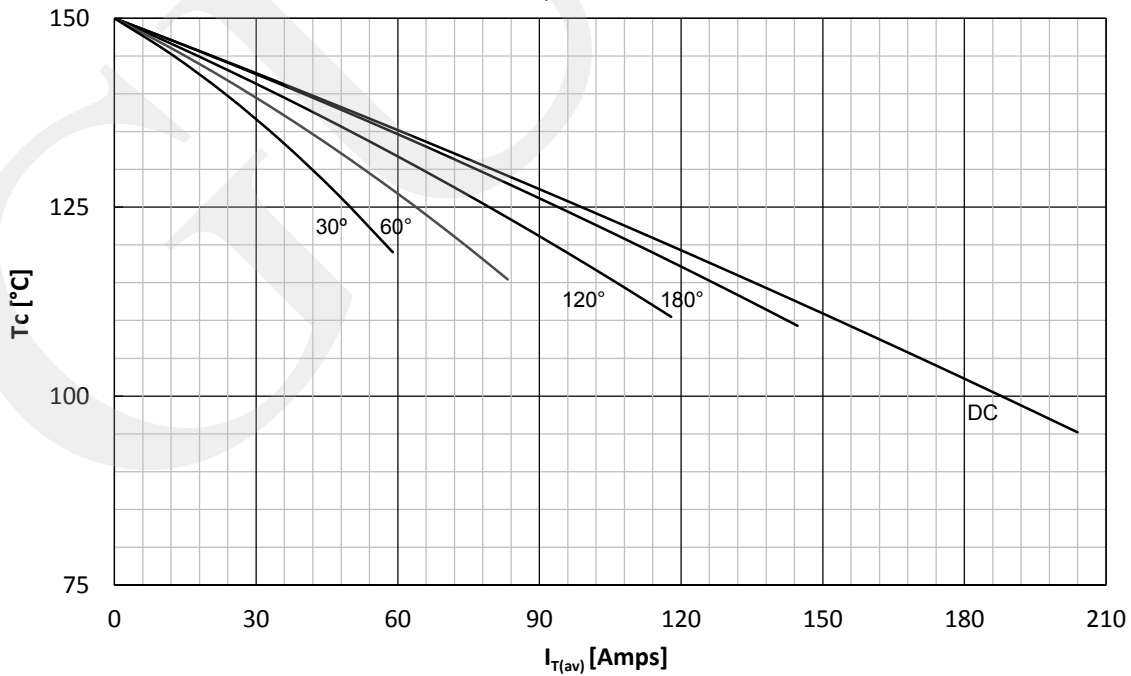
ON STATE CURRENT DERATING CURVE PER ARM  
SINE WAVE



DISSIPATION CHARACTERISTICS PER ARM  
SQUARE WAVE

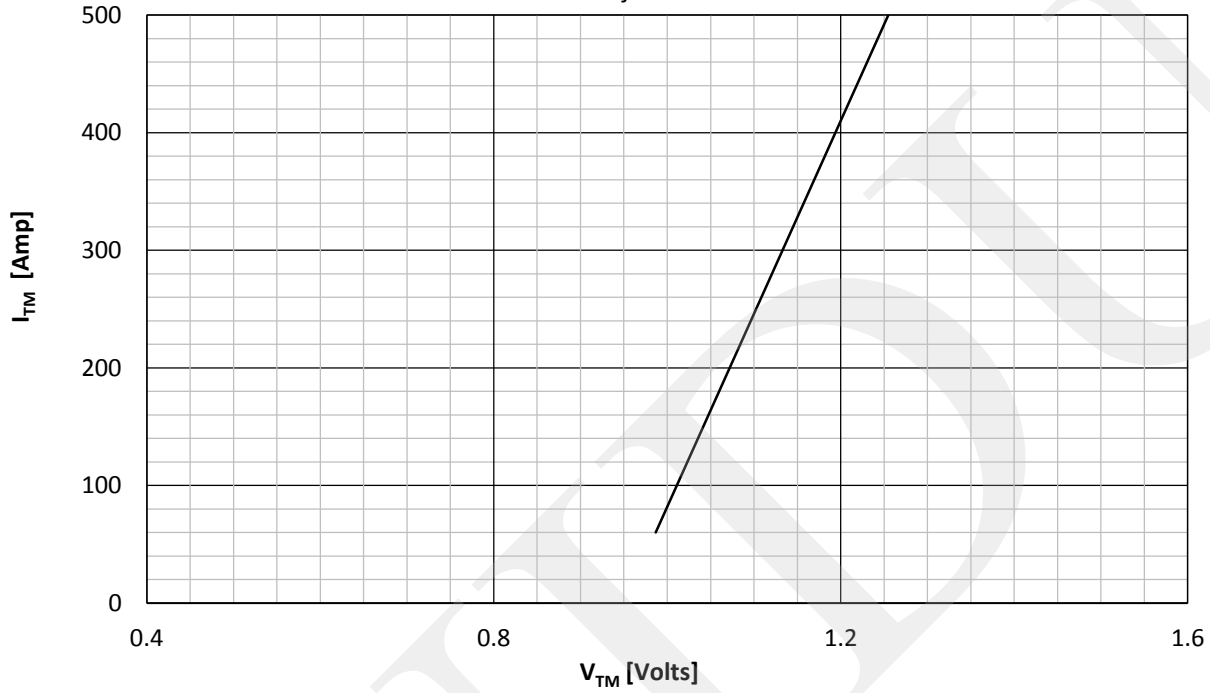


ON STATE CURRENT DERATING CURVE PER ARM  
SQUARE WAVE

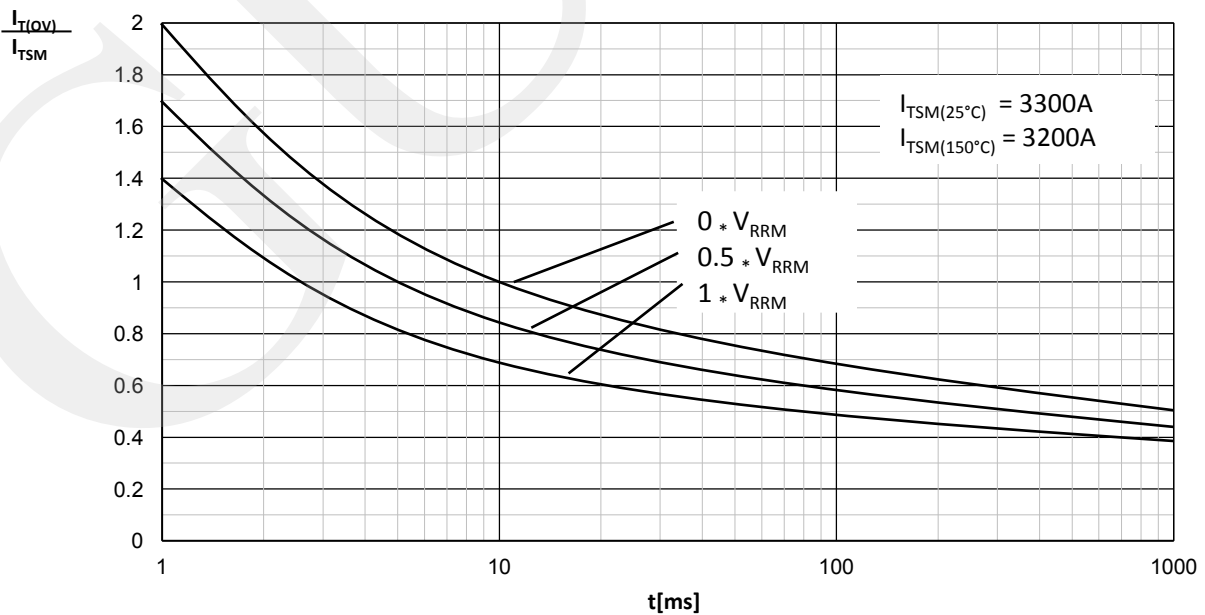


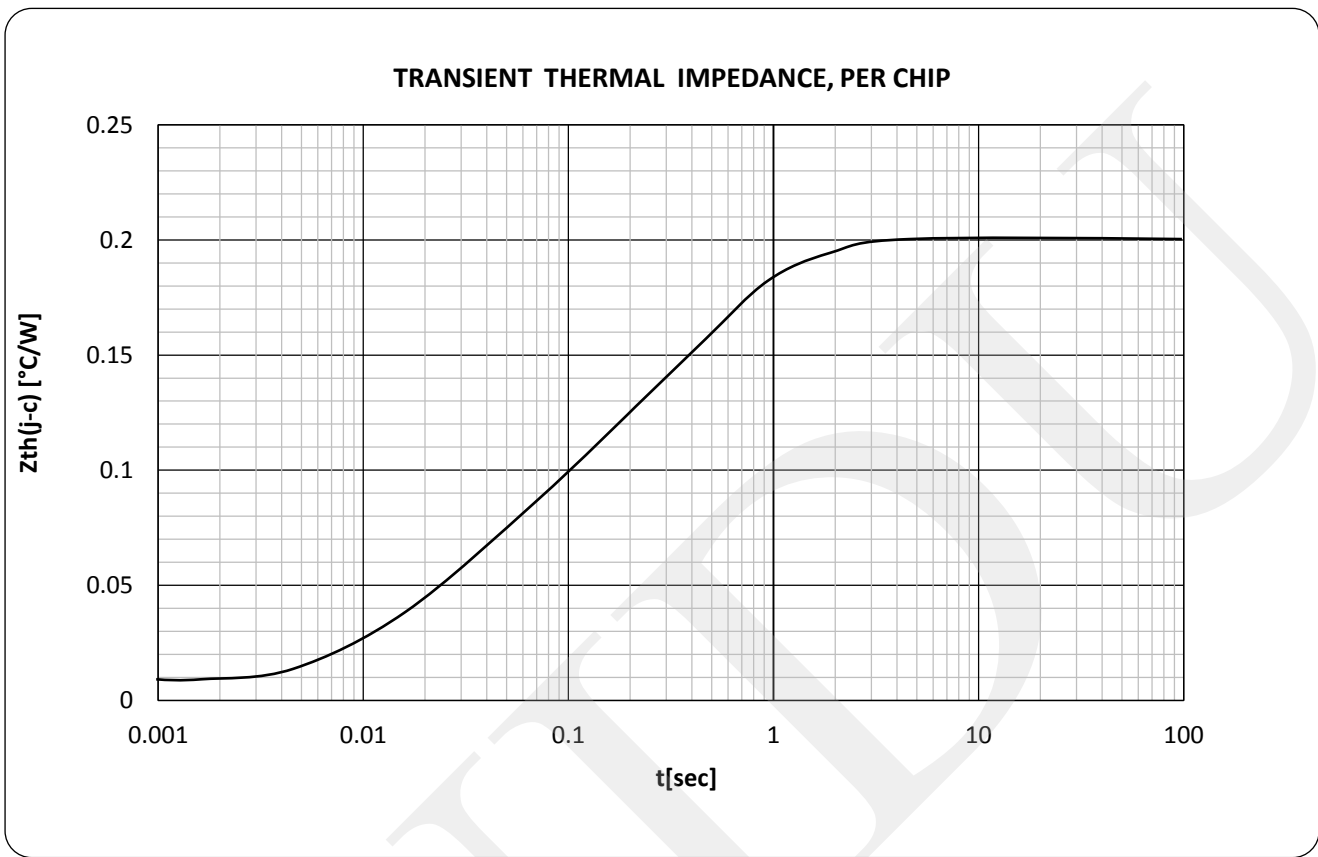
ON STATE CHARACTERISTICS

$T_j = 150^\circ\text{C}$



SURGE CHARACTERISTICS





**ORDERING INFORMATION**

<b>MT</b>	<b>G</b>	<b>- AA</b>	<b>- 130</b>	<b>X X</b>
Three Thyristor Module	Circuit Configuration G - Common Anode Y - Common Cathode	Welder class	Current Code	Voltage Code Code X 100 = $V_{DRM}/V_{RRM}$

Order Code MTG-AA-130-04 – 400V  $V_{DRM}/V_{RRM}$ , Three thyristor module with common Anode configuration.

Outline

