

# Thyristor Modules

TYPE: YZPST-MCC310-16io1

## Features

- Industrial standard package
- Electrically insulated base plate
- Heat transfer through aluminium oxide ceramic insulated metal base plate
- Chip soldered on direct copper bonded AL<sub>2</sub>O<sub>3</sub> ceramic
- Thyristor chip with center gate

## Typical Applications

- DC motor control
- AC motor soft starters
- Temperature control
- Professional light dimming

V <sub>DRM</sub> /V <sub>RSM</sub>	T <sub>j</sub> =25°C	1600	V
V <sub>RSM</sub>	T <sub>j</sub> =25°C	1700	V

## Maximum Ratings

Symbol	Condition	Ratings	Unit
I <sub>T(AV)</sub>	sin. 180; T <sub>c</sub> =85°C,	320	A
I <sub>TRMS</sub>	sin. 180; T <sub>c</sub> =85°C,	500	A
I <sub>TSM</sub>	T <sub>vj</sub> =25°C; 10 ms	9200	A
I <sup>2</sup> t	T <sub>vj</sub> =25°C; 8,3...10 ms	423.2	kA <sup>2</sup> S
(di/dt) <sub>cr</sub>	non-repetitive	100	A/us
V <sub>iso</sub>	A.C. 1s / 1min.	3600/3000	V
T <sub>j</sub>		-40 ~ + 140	°C
T <sub>stg</sub>		-40 ~ + 125	°C
W	About	255	g

## Electrical Characteristics

Symbol	Condition	Ratings	Unit
I <sub>DRM</sub> /I <sub>RSM</sub>	AtV <sub>DRM</sub> , T <sub>j</sub> =125°C	40	mA
V <sub>T</sub>	On-State Current 300A, T <sub>j</sub> =25°C	1.14	V
V <sub>T(TO)</sub>	T <sub>j</sub> =125°C	0.80	V
r <sub>T</sub>	T <sub>j</sub> =125°C	0.82	mΩ
t <sub>gd</sub>	T <sub>j</sub> =25°C	2	us
t <sub>q</sub>	T <sub>j</sub> =125°C	200	us
I <sub>GT</sub> /V <sub>GT</sub>	T <sub>j</sub> =25°C	150 / 2	mA/V
V <sub>GD</sub>	T <sub>j</sub> =125°C	0.25	V
(dv/dt) <sub>cr</sub>	T <sub>j</sub> =125°C	1000	V/us
I <sub>H</sub>	T <sub>j</sub> =25°C, max.	150	mA
I <sub>L</sub>	T <sub>j</sub> =25°C, max.	200	mA
R <sub>th(j-c)</sub>	Per Module	0.11	K/W

M <sub>D</sub>	Mounting torque	5	Nm
M <sub>T</sub>	Terminal torque	15	Nm

Outline Drawing

