



# Single Phase Diode Bridges MDQ300



## Key Parameters

$I_D$	=	300	A
$V_{RRM}$	=	600-2000	V
$I^2t$	=	23.5	kA <sup>2</sup> s
$V_{FO}$	=	0.80	V

## Typical Application

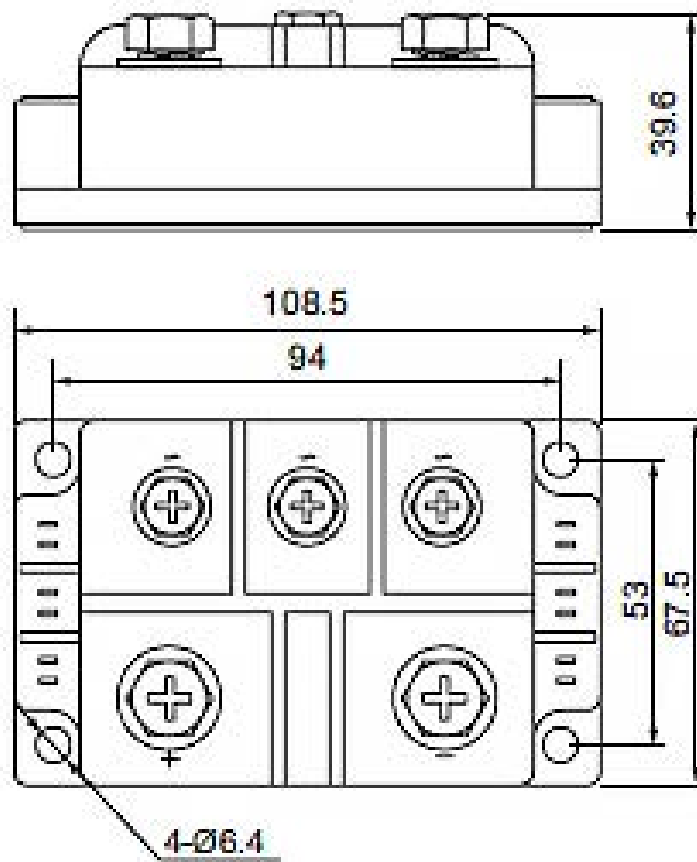
- Inversion welder, current charging DC power supply
- Excitation source for DC motor, input rectifying of switching power supply
- Charging of soft starting capacitor, electric towage and auxiliary current
- DC power supply of appliance and device, input rectifying power supply of PWM frequency transformer

## MAXIMUM ALLOWABLE RATINGS

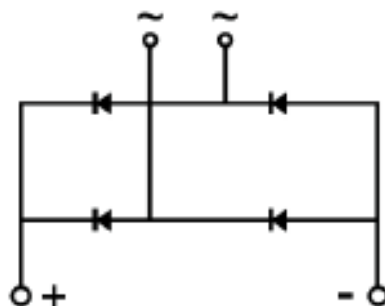
Symbols and parameters		Maximum Limits	Unit
$I_D$	Direct output current	300	A
$V_{RRM}$	Max. repetitive peak reverse blocking voltage	600-2000	V
$I_{RRM}$	Maximum repetitive peak reverse current	10	mA
$I_{FSM}$	Surge peak forward current	2.5	kA
$I^2t$	Safety factor	22.1	kA <sup>2</sup> s
$V_{FO}$	Threshold voltage	0.80	V
$r_F$	Slope resistance	3.8	mΩ
$V_{FM}$	Peak on-state voltage	1.47	V
$R_{th(j-c)}$	Thermal resistance, node to shell	0.15	°C/W
$R_{th(c-h)}$	Thermal resistance, shell to powder	0.10	°C/W

<b>V<sub>isol</sub></b>	Isolation voltage	2500	V
<b>F<sub>M</sub></b>	Mounting torque	4-6	mN
<b>T<sub>stg</sub></b>	Stored temperature	-40...125	°C
<b>W</b>	Weight	600	g

### DIMENSIONS



### TOPOLOGY OF INTERNAL CONNECTION



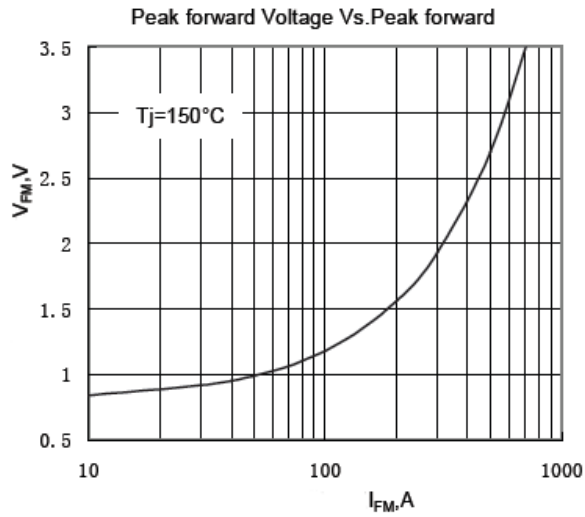


Fig.1

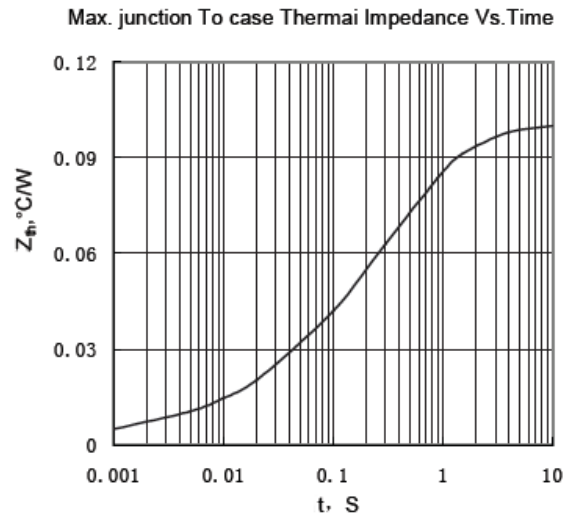


Fig.2

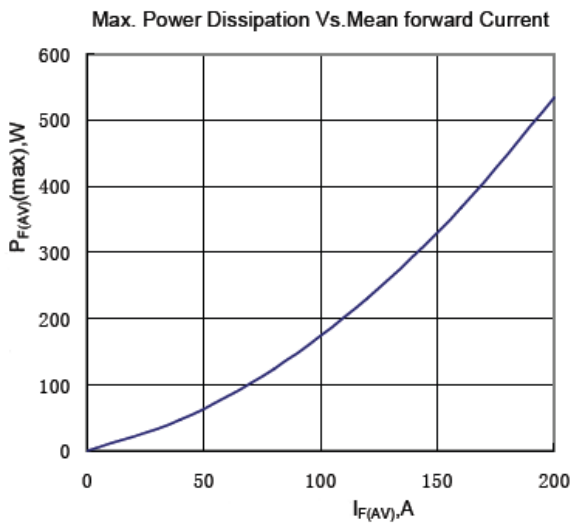


Fig.3

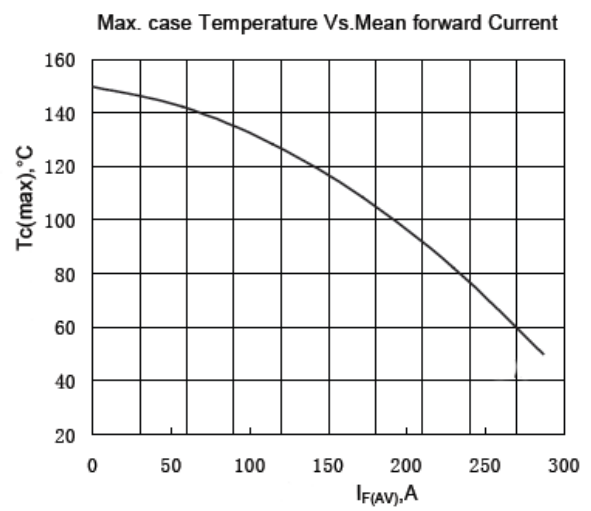


Fig.4

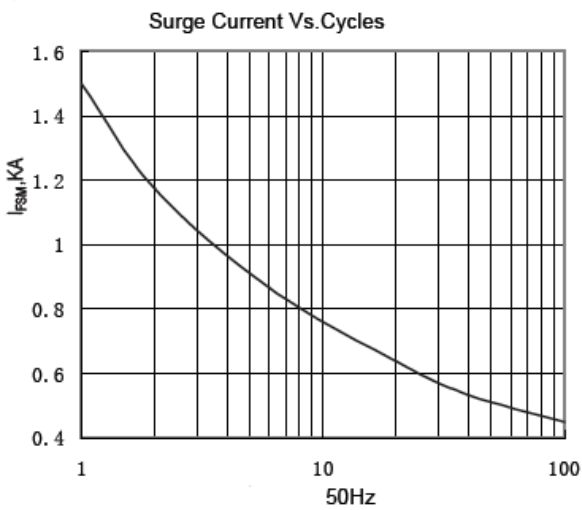


Fig.5

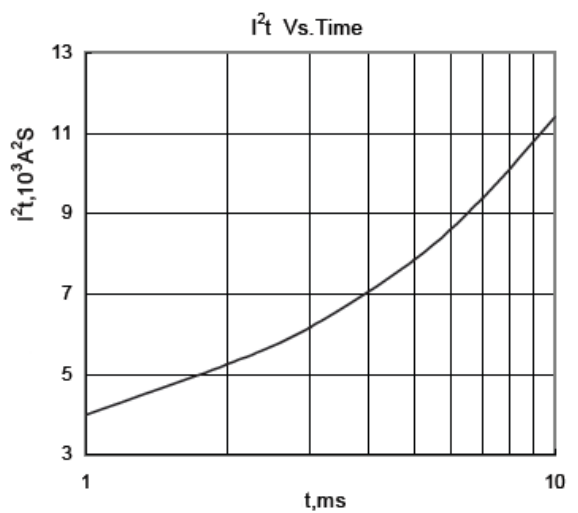


Fig.6