

# MZC/MZA/MZK/MZX160A FAST DIODE MODULE



## Features

Isolated mounting base 2500V  
Compact structure and light weight savings  
Full crimping structure, super temperature characteristics and power cycle capability

$I_{T(AV)}$	160A
$V_{DRM}/V_{RRM}$	600~1600 V
$I_{TSM}$	4.3KA
$I^2T$	94.2 KA <sup>2</sup> S

## Application

AC/DC Motor Control  
Various rectifying power suppliers  
Industry Heating Regulation  
Light Dimming  
Contactless Switches  
Motor Soft Start  
Welding Device  
Converter

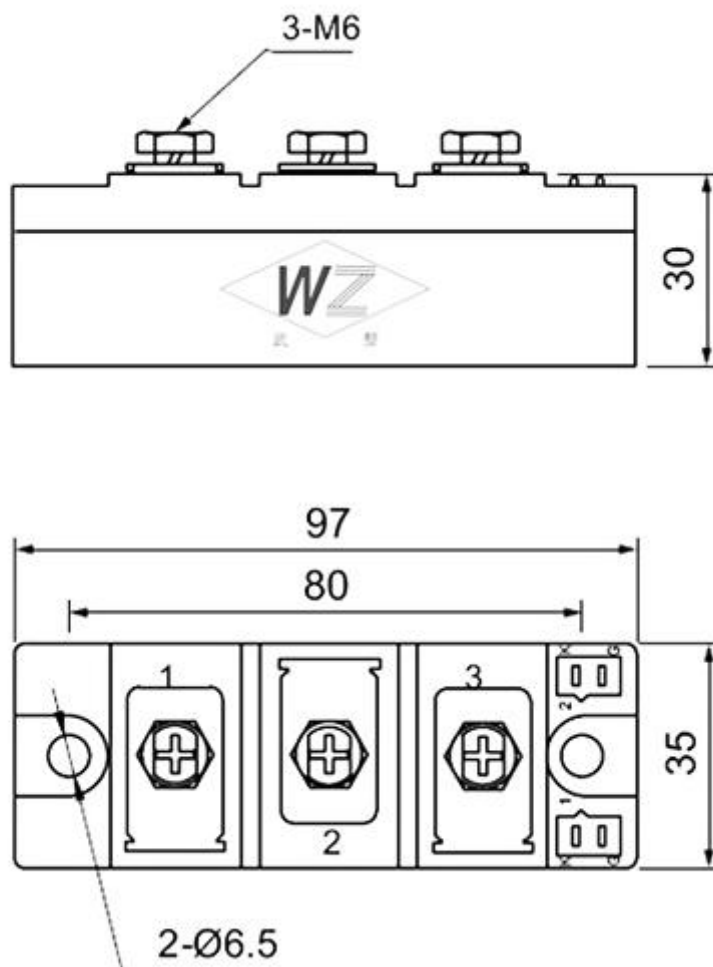
Symb.		parameter	Test Conditions	$T_{J(C)}$	Value	Unit
Current Ratings	$I_{F(AV)}$	average on-state current	180 °half sine wave 50Hz Single side cooled $T_c=100\text{ }^\circ\text{C}$	140	150	A
	$I_{F(RMS)}$	RMS on-state current		140	236	A
	$I_{FSM}$	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	140	4.30	KA
	$I^2t$	I <sup>2</sup> T for fusing coordination		140	94.2	KA <sup>2</sup> S
Characteristics	$V_{RRM}$	Repetitive peak reverse voltage	$V_{RRM}$ tp=10ms $V_{RSM}=V_{RRM}+200V$	140	600-1600	V
	$I_{RRM}$	Repetitive peak reverse current	$V_{RM}=V_{RRM}$	140	Max.30	mA
	$V_{FO}$	Threshold voltage		140	Max.0.80	V
	$V_{FM}$	Peak on-state voltage	$I_{FM}=450A$	25	Max.1.60	V
	$r_F$	On-state slop resistance		140	Max.1.38	mΩ
	trr	Reverse recovery time	IFM=150A, tp=1000μs, -di/dt=20A/μs, VR=50V	140	Typ.2.0	μs

## Thermal & Mechanical Data

Symb.	parameter	Test Conditions	Value	Unit
$R_{th(j-c)}$	Thermal resistance Junction to case	single side cooled	Max.0.210	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink	single side cooled	Min.0.04	°C/W
$F_m$	Thermal connection torque(M5)		Typ.12	N m
	Mounting force (M6)		Typ.6	N m
$T_{stg}$	Stored temperature		-40+125	°C
$W_t$	Weight		860	g

## Outline:

M3



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