

MFG/MFY160A

Non-Insulated Type Thyristor Diode Module

Features

Isolated mounting base 2500V
Increased power cycling capability
Space and weight savings

$I_{T(AV)}$	160A
V_{DRM}/V_{RRM}	400-2600 V
I_{TSM}	5.6KA
I^2T	160KA ² S

Application

AC/DC Motor drives
Various rectifiers
DC supply for PWM inverter

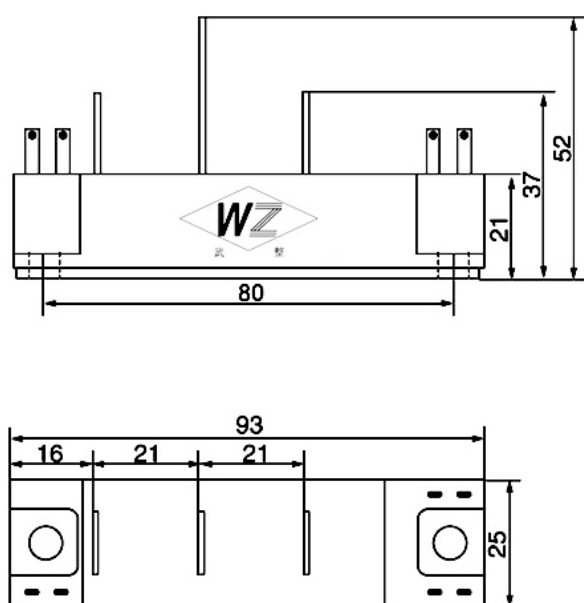
Symb.		parameter	Test Conditions	$T_J(^{\circ}C)$	Value	Unit
Current Ratings	$I_{T(AV)}$	average on-state current	180 °half sine wave 50Hz Single side cooled $T_c=110^{\circ}C$	140	160	A
	$I_{T(RMS)}$	RMS on-state current		140	251	A
	I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	140	5.60	KA
	I^2t	I ² T for fusing coordination		140	160	KA ² S
Characteristics	V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 200V$	140	400-2600	V
	I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM} = V_{DRM}$ $V_{RM} = V_{RRM}$	140	Max.12	mA
	V_{TO}	Threshold voltage		140	Max.0.80	V
	V_{TM}	Peak on-state voltage	$I_{TM}=480A$	25	Max.1.43	V
	r_T	On-state slop resistance		140	Max.1.15	mΩ
	I_H	Holding current	$V_A=12V, I_A=1A$	25	20-200	ma
Dynamic Parameters	dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	140	Max.800	V/μs
	di/dt	Critical rate of rise of on-state current	$I_{TM}=480A$, gate trigger current amplitude $I_{GM}=1.5A$, gate trigger current rise time $t_r \leq 1\mu s$	140	Max.100	A/μs
Gate Parameters	I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	30-150	mA
	V_{GT}	Gate trigger voltage		25	1.0-2.5	V
	V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	140	Min.0.2	V

Thermal & Mechanical Data

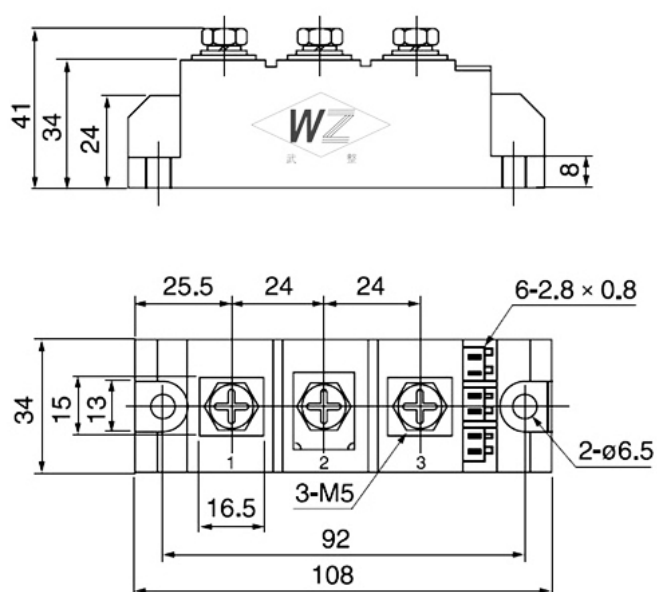
Symb.	parameter	Test Conditions	Value	Unit
R _{th(j-c)}	Thermal resistance Junction to case	single side cooled	Max.0.150	℃/W
R _{th(c-h)}	Thermal resistance case to heat sink	single side cooled	Max.0.04	℃/W
F _m	Terminal connection torque(M5)		Min.12	N·m
	Mounting force (M6)		Max.6.0	N·m
T _{stg}	Stored temperature		-40-+125	℃
W _t	Weight		680	g

Outline:

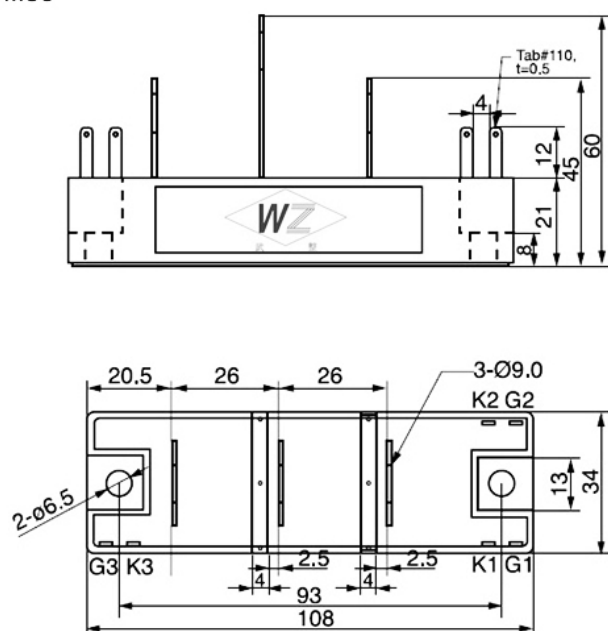
M36



M37



M38



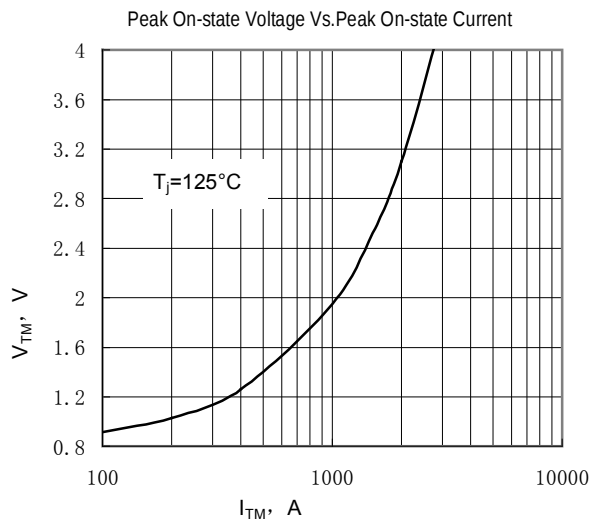


Fig.1

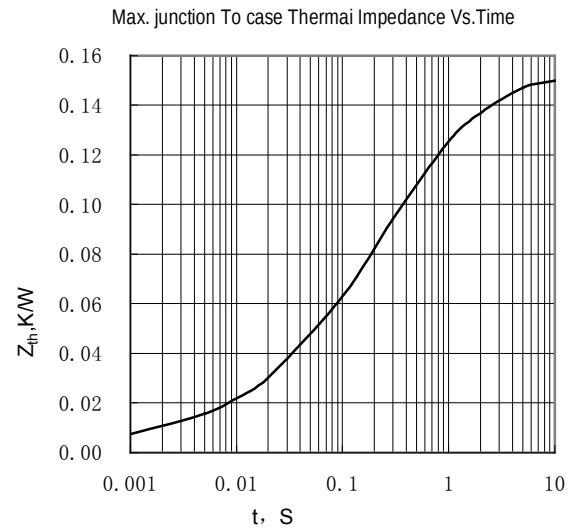


Fig.2

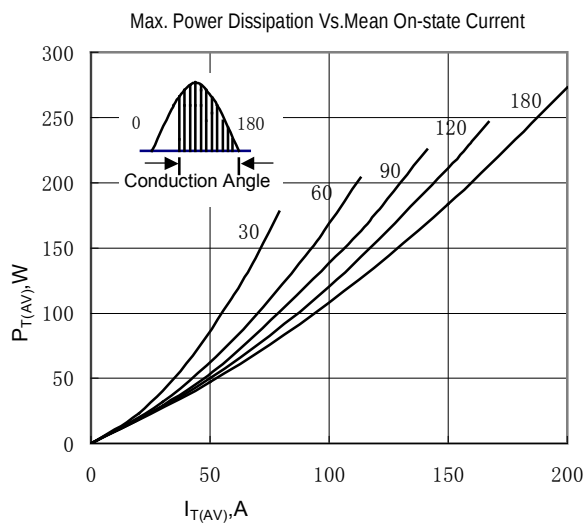


Fig.3

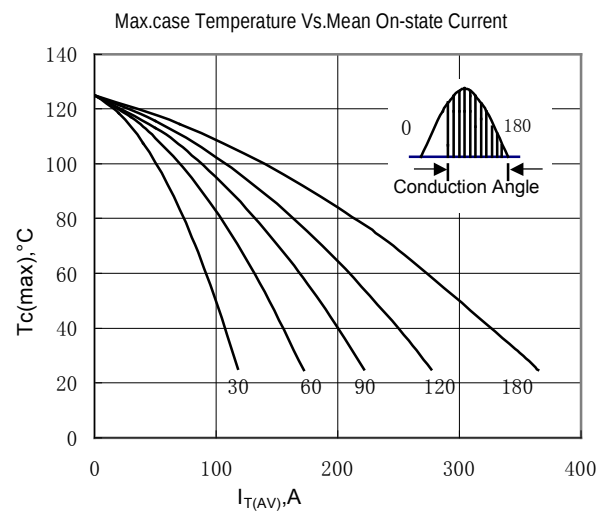


Fig.4

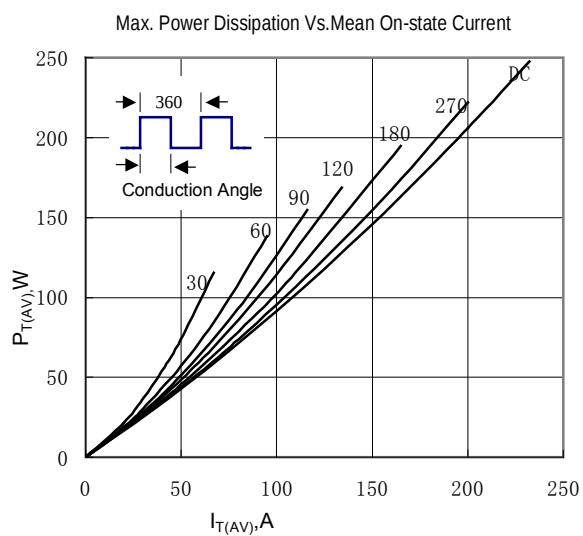


Fig.5

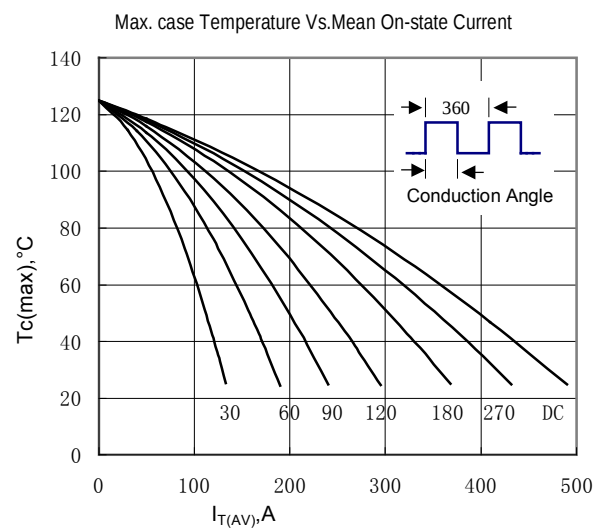


Fig.6

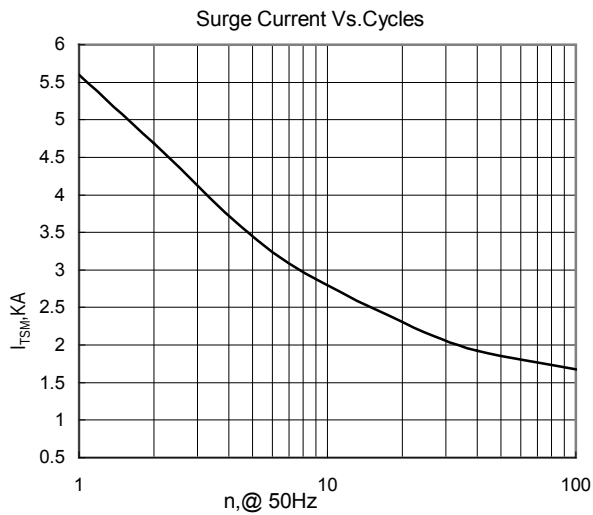


Fig.7

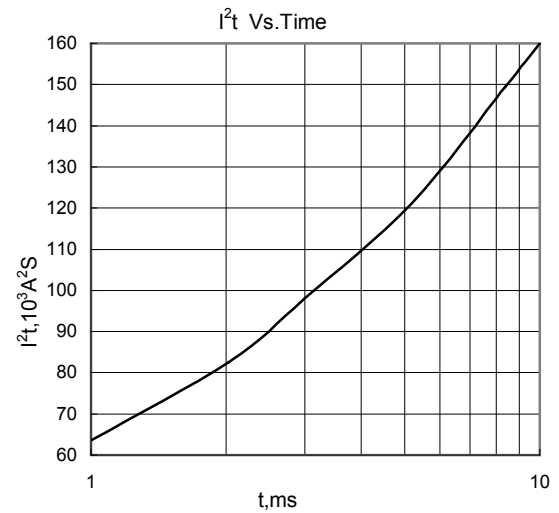


Fig.8

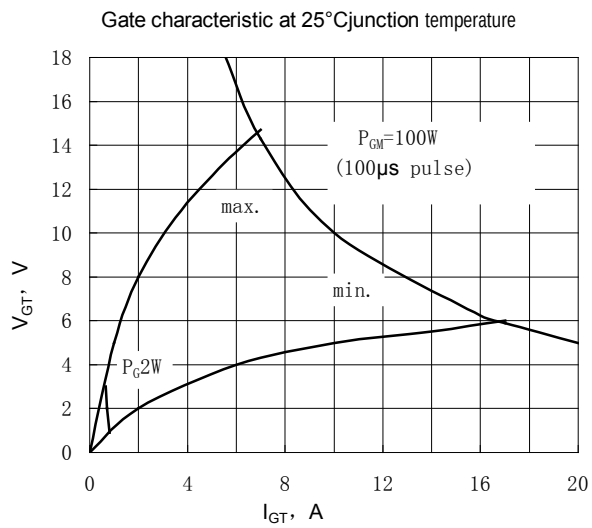


Fig.9

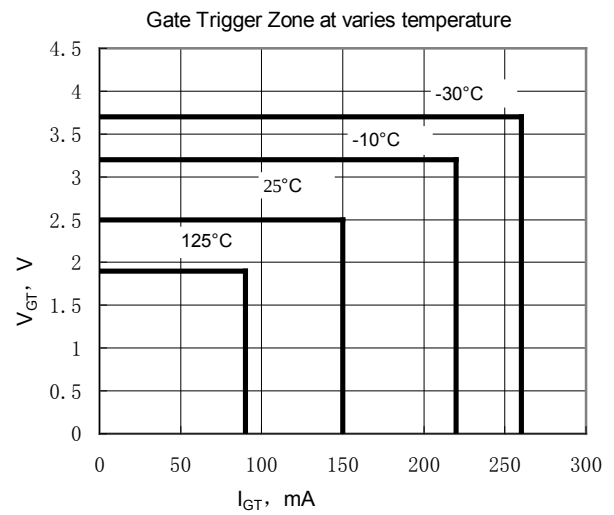


Fig.10

Wuhan Wuzheng Rectifier Co., Ltd

Add: NO. 73 Gaoxin Five Road, East Lake New Technology Development Zone, Wuhan City, Hubei province.

Tel : 86-27-87001995

Fax: 86-27-87180920

Email: info@techele.com

Web: www.techele.com/en

cn-techele.en.alibaba.com