

Thyristor Module

$V_{RRM} = 1200V$ to $2000V$

$I_{T(AV)} = 110A$

FEATURES

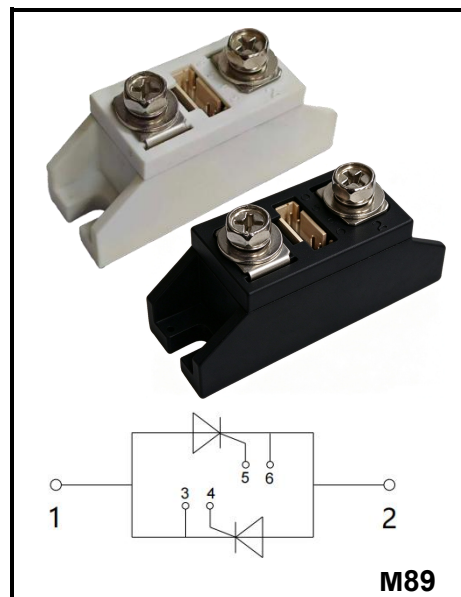
- ◆ Low reverse leakage current
- ◆ High surge current capability
- ◆ Glass passivated chip
- ◆ Isolated Module package

APPLICATIONS

- ◆ Industrial power supply
- ◆ DC supply for PWM inverter
- ◆ Supplies for DC power equipment

MECHANICAL DATA

- ◆ Case : M89
- ◆ Polarity: Polarity symbols being marked on body
- ◆ Mounting torque: 15kgf.cm max



Maximum Ratings @ $T_a = 25^{\circ}C$ unless otherwise noted

Parameter		Symbols	MTX110-12	MTX110-14	MTX110-16	MTX110-18	MTX110-20	Units
Maximum recurrent peak reverse voltage		V_{RRM}/V_{RDM}	1200	1400	1600	1800	2000	V
Average rectified output current	with heatsink, $T_c = 100^{\circ}C$	$I_{T(AV)}$	110					A
RMS On-state Current		I_{TRMS}	170					A
Peak surge forward current, 8.3ms single half sine wave superimposed on rated load		I_{TSM}	2200					A
Rating for fusing, 1ms < t < 8.3ms, $T_j = 25^{\circ}C$, Rating of per diode		I^2t	24000					A ² S
Dielectric strength terminals to case AC 1 minute		V_{iso}	2.5					KV
Peak Forward Voltage	$I_{TM} = 330A$	V_{TM}	1.7					V
Peak Reverse Current	$V_R = V_{RRM}$, $V_D = V_{DRM}$ Pulse measurement Rating of per diode	I_{RRM}/I_{DRM}	35					mA
Gate Trigger Voltage, Max	$T_j = 25^{\circ}C$, $V_D = 6V$	V_{GT}	3.0					V
Gate Trigger Current, Max	$T_j = 25^{\circ}C$, $V_D = 6V$	I_{GT}	150					mA
Latching Current	$T_j = 25^{\circ}C$	I_L	200					mA
Holding Current	$T_j = 25^{\circ}C$	I_H	150					mA
Thermal Resistance Junction-Case		$R_{\theta JC}$	0.24					$^{\circ}C/W$
Operating Junction Temperature Range		T_J	$-40 \sim +150$					$^{\circ}C$
Storage Temperature Range		T_{STG}	$-40 \sim +125$					$^{\circ}C$

Characteristic Curve

FIG 1 .Forward Current DeratingCurve

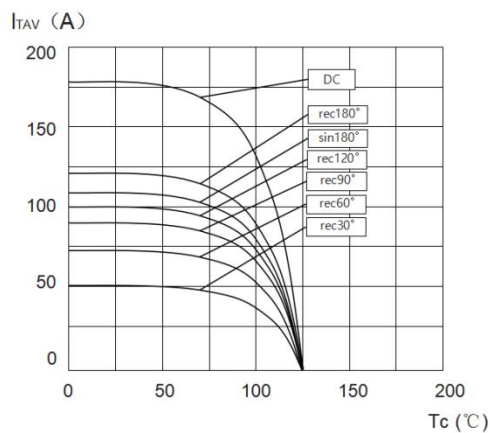


FIG 2.Max Non-Repetitive Forward Surge Current

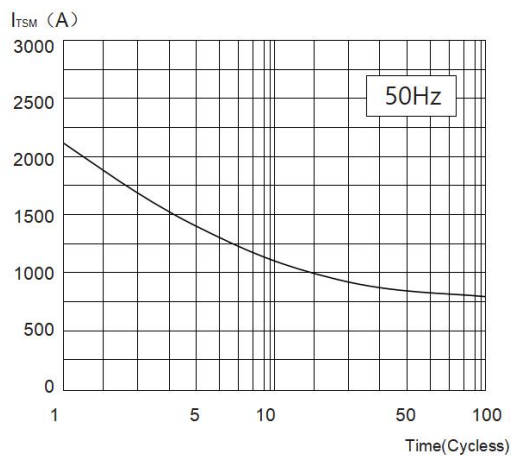


Fig 3. Forward Characteristics

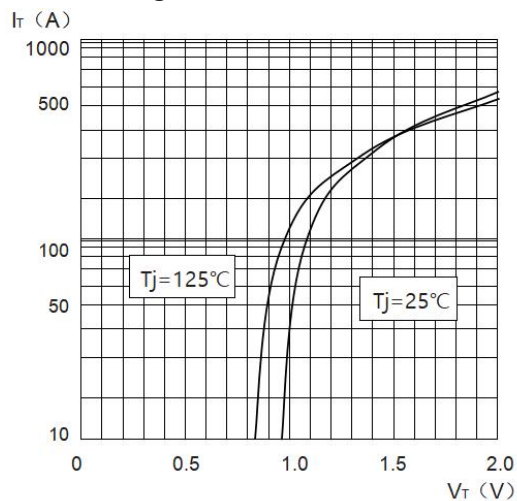
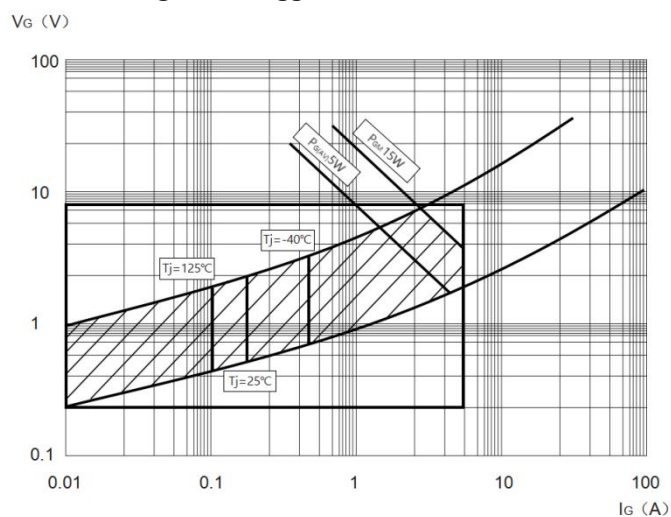
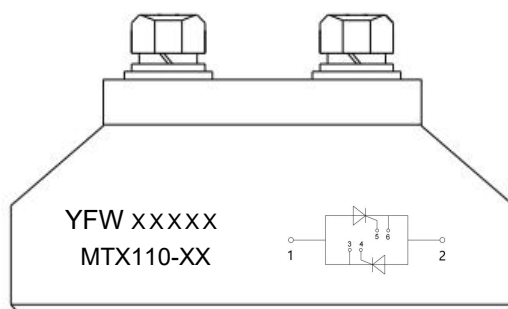


Fig 4.Gate Trigger Characteristics



Marking Diagram

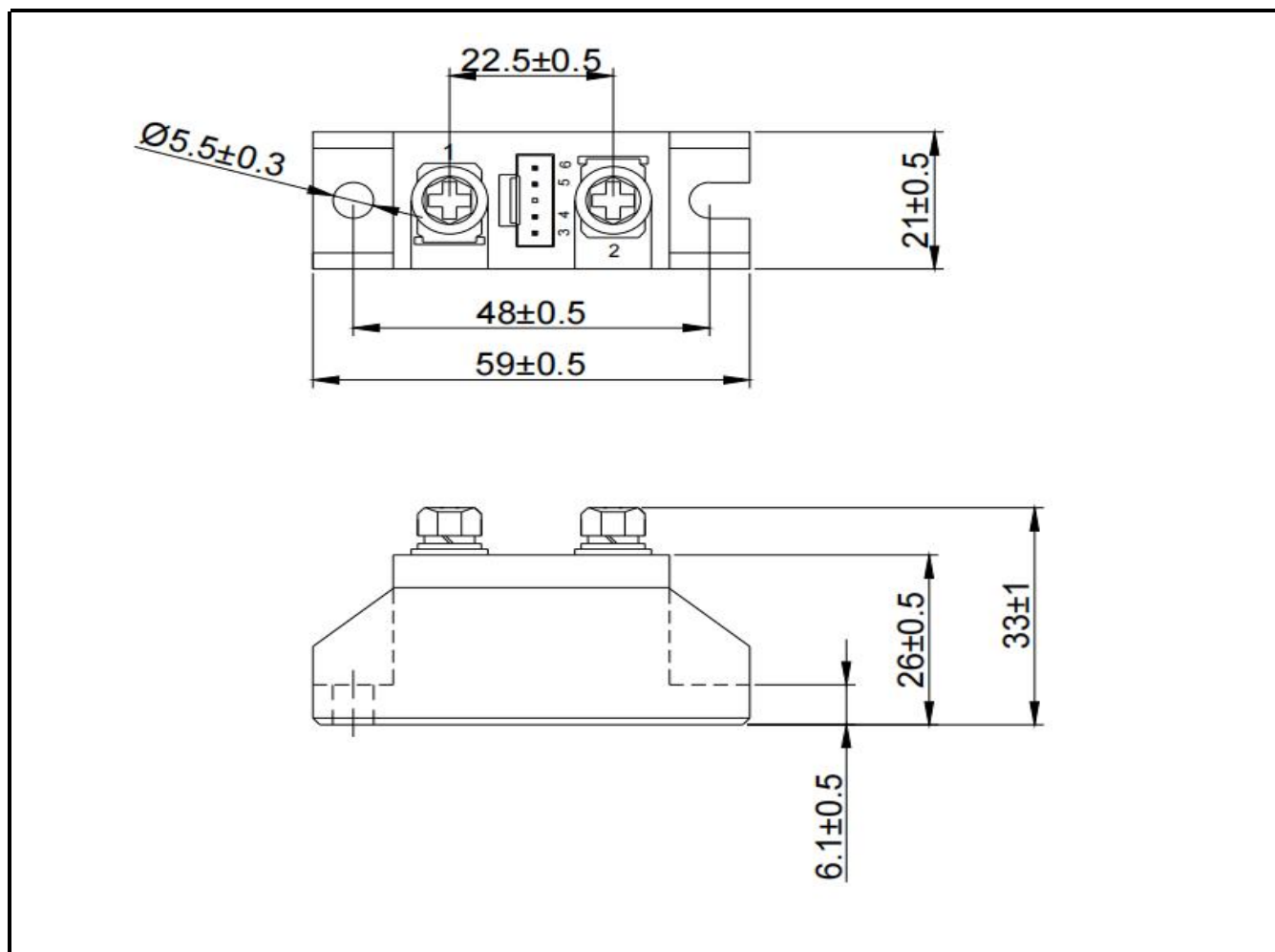


Ordering information

Model name	Package	Unit Weight	Base Quantity
MTX110-XX	M89	-	20pcs/ Box

Package Dimensions

M89



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