



Thyristor/Diode Modules

V_{RRM} / V_{DRM}

Module Type

Diode

Maximum Ratings

Symbol	Item	Conditions	Values	Units
I_D	Output Current(D.C.)	$T_c=85$	160	A
I_{FSM}	Surge forward current	$t=10\text{mS}$ $T_{vj}=45$	5400	A
i^2t	Circuit Fusing Consideration		145000	A^2s
V_{isol}	Isolation Breakdown Voltage(R.M.S)	a.c.50HZ;r.m.s.;1min	3000	V
T_{vj}	Operating Junction Temperature		-40 to +125	
T_{stg}	Storage Temperature		-40 to +125	
M_t	Mounting Torque	To terminals(M6)	$3\pm 15\%$	Nm
M_s		To heatsink(M6)	$5\pm 15\%$	Nm
Weight	Module Approximately		165	g

Thermal Characteristics

Symbol	Item	Conditions	Values	Units
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to Case	0.085	/W
$R_{th(c-s)}$	Thermal Impedance, max.	Case to Heatsink	0.05	/W

Electrical Characteristics



Thyristor Maximum Ratings

Symbol	Item	Conditions	Values	Units
I_{TAV}	Average On-State Current	Sine 180°; $T_c=85$	160	A
I_{TSM}	Surge On-State Current	$T_{VJ}=45$ $t=10ms$, sine $T_{VJ}=125$ $t=10ms$, sine	5400 5000	A
i^2t	Circuit Fusing Consideration	$T_{VJ}=45$ $t=10ms$, sine $T_{VJ}=125$ $t=10ms$, sine	145000 125000	A ² s
Visol	Isolation Breakdown Voltage(R.M.S)	a.c. 50HZ; r.m.s.; 1min	3000	V
T_{vj}	Operating Junction Temperature		-40 to +125	
T_{stg}	Storage Temperature		-40 to +125	
M_t	Mounting Torque	To terminals(M6)	3	

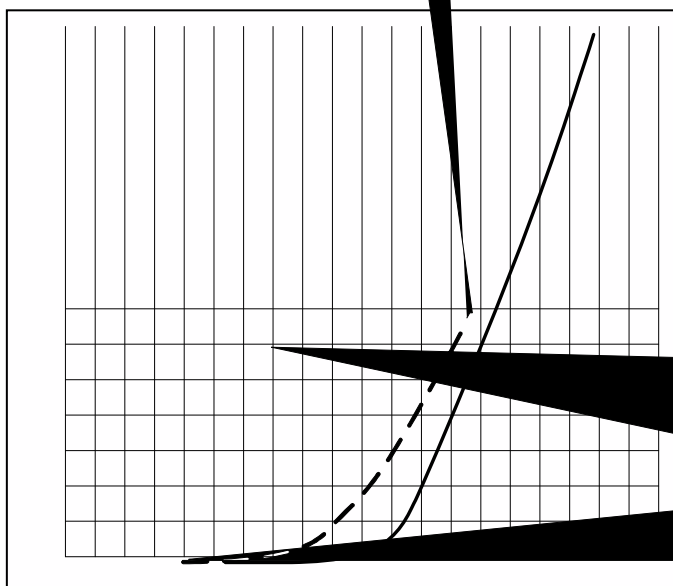
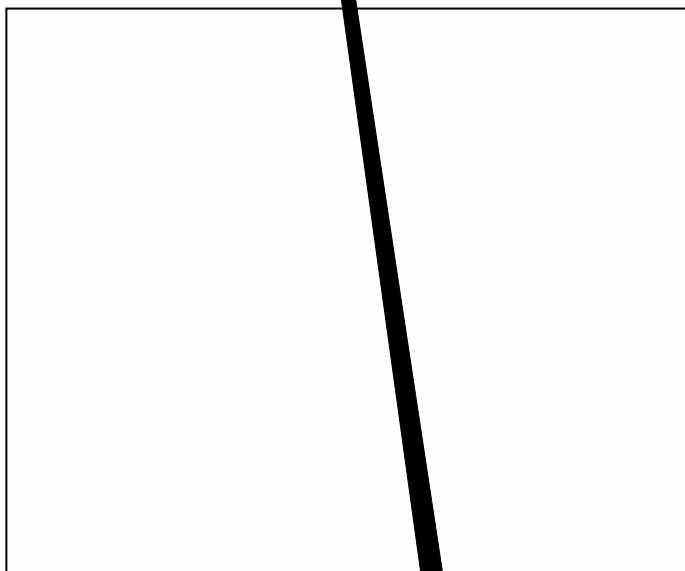
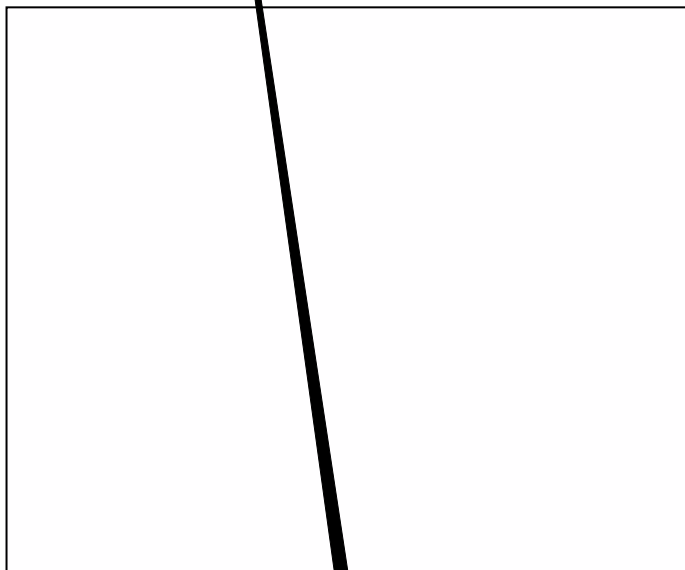
Thermal Characteristics

Symbol	Item	Conditions	Values	Units
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to Case	0.17	/W
$R_{th(c-s)}$	Thermal Impedance, max.	Case to Heatsink	0.10	/W

Electrical Characteristics



Performance Curves



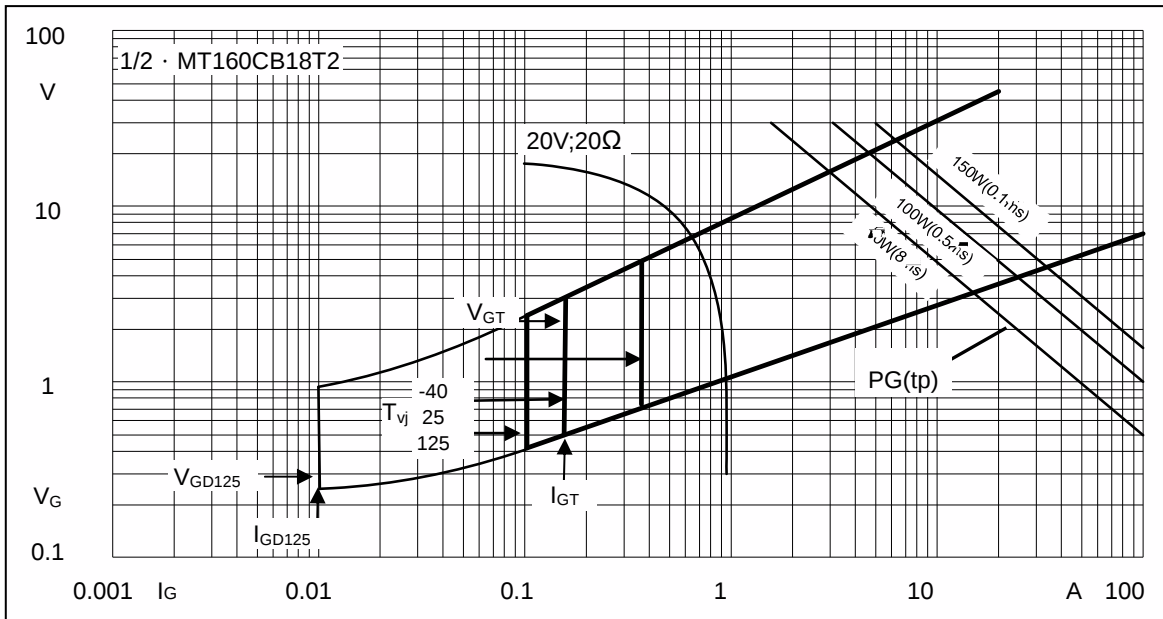
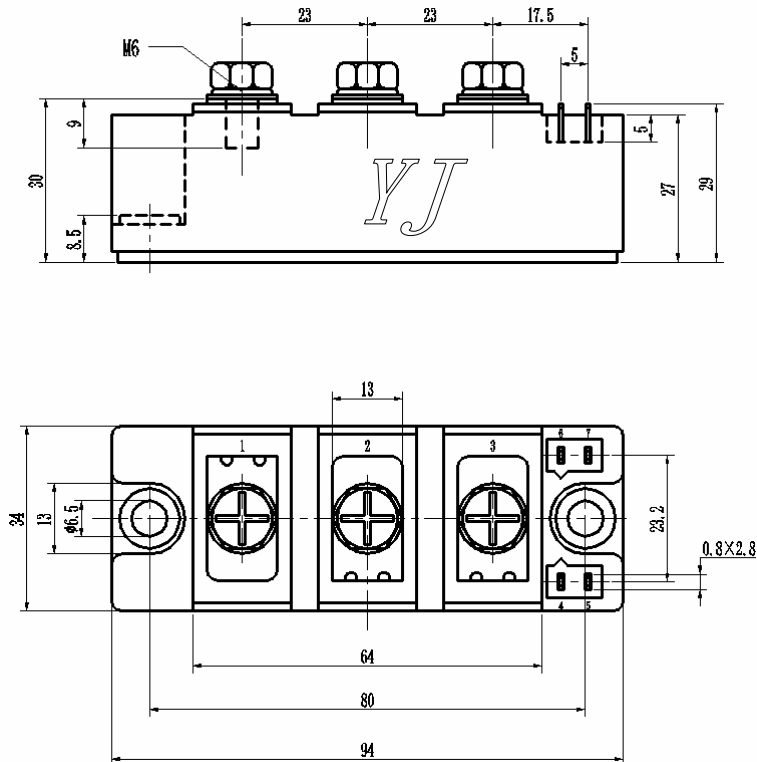


Fig6. Gate trigger Characteristics

Package Outline Information

CASE: T2



Dimensions in mm