



浙江世菱半导体有限公司
ZHEJIANG SHILING SEMICONDUCTOR CO.,LTD.

产品规格书

Specification of products

产品名称：可控硅模块

产品型号：MTC120A-T20

浙江世菱半导体有限公司
ZHEJIANG SHILING SEMICONDUCTOR CO., LTD.

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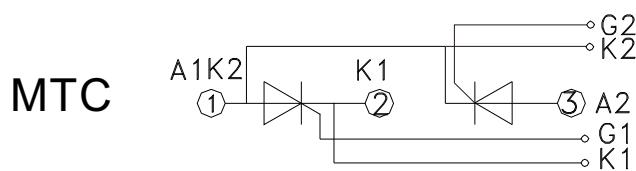
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拟制	审核	核准
林益龙	曹剑龙	宗瑞

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=90^\circ C$	125			120	A
$I_{T(RMS)}$	RMS on-state current	Single side cooled, $T_c=90^\circ C$	125			188	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DsM} \& V_{RsM} = V_{DRM} \& V_{RRM} + 200V$ respectively	125		1600		V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			12	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	125			3.20	KA
I^2t	I^2T for fusing coordination					52.2	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					2.45	$m\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=360A$	125			1.4	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			800	V/ μ s
di/dt	Critical rate of rise of on-state voltage current	From 67% V_{DRM} to 300A, Gate source 1.5A $t \leq 0.5\mu s$ Repetitive	125			100	A/ μ s
I_{GT}	Gate trigger current		30			100	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$	25	0.8		2.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to heatsink	Single side cooled				0.250	°C /W
F_m	Thermal connection torque(M5)				4.0		N.m
	Mounting torque(M6)				5.0		N.m
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				150		g
Outline							

OUTLINE DRAWING & CIRCUIT DIAGRAM



Rating and Characteristic

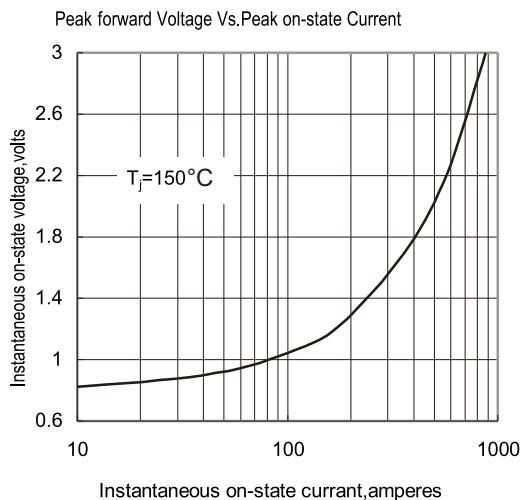


Fig.1

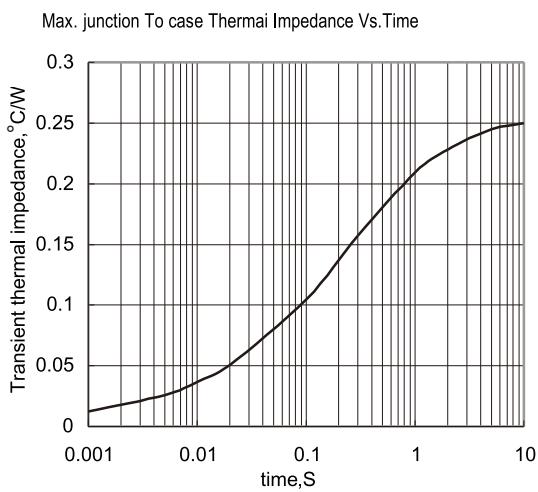


Fig.2

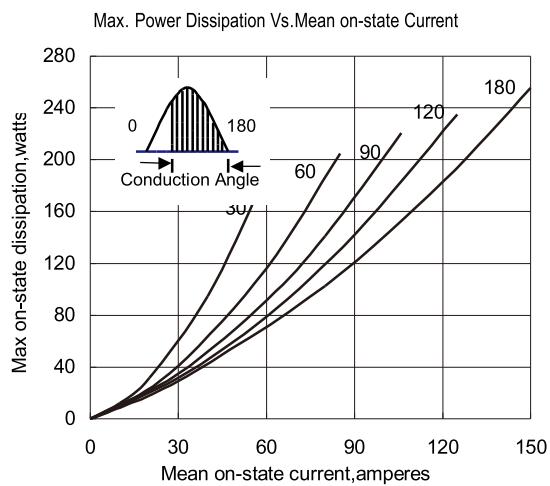


Fig.3

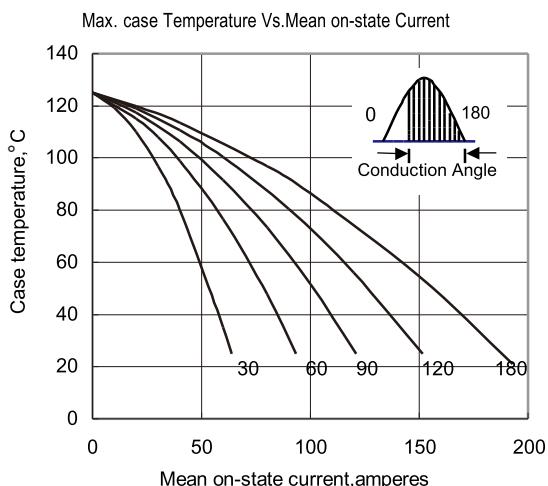


Fig.4

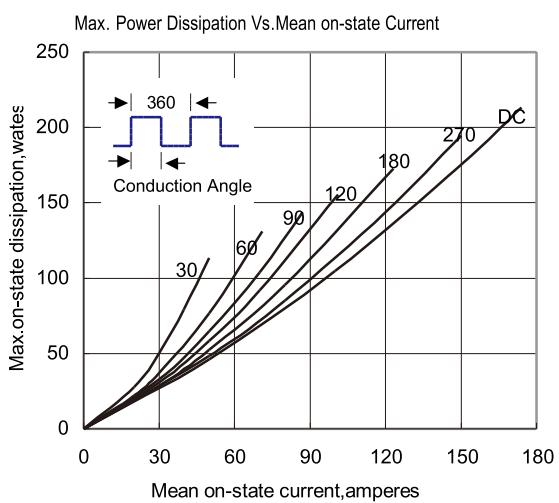


Fig.5

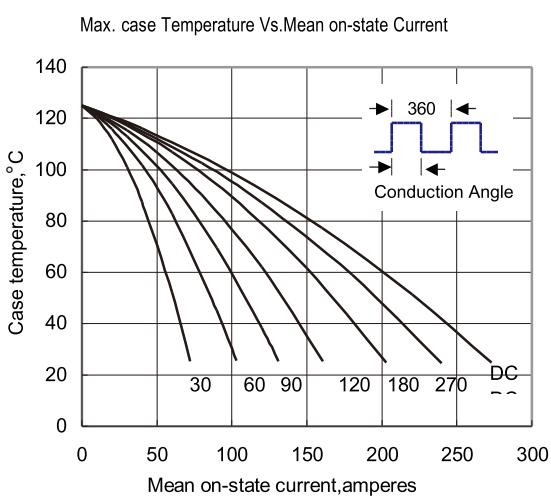


Fig.6

Outside Dimension

3-M5

