

产品规格书

Specifcation of products

产品名称:可控硅模块

产品型号: MT1200E4Y12

浙江世菱半导体有限公司
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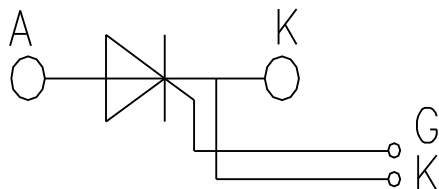
Http://www.smrshiling.com

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	
V _{DRM} V _{RDM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125		400	500	V
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Single side cooled, T _c =85°C	125		1200		A
I _{T(RMS)}	RMS on-state current				1284		A
I _{DRM} I _{RDM}	Repetitive peak current	at V _{DRM} at V _{RDM}	125			50	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			20.4	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{RDM}				3630	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.80	V
r _T	On-state slope resistance					0.09	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =3600A	25			1.20	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =67%V _{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t _r ≤ 0.5μs Repetitive	125			250	A/μs
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=2000μs, di/dt=-60A/μs, V _R =50V	125			750	μC
tq	Circuit commutated turn-off time	I _{TM} =500A, tp=1000μs, V _R =50V dv/dt=30V/μs, di/dt=-20A/μs	125		15		μs
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	30		200	mA
V _{GT}	Gate trigger voltage			0.8		3.0	V
I _H	Holding current			20		200	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}	125	0.2			V
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled per chip				0.031	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled per chip				0.020	°C/W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		3000			V
F _m	Terminal connection torque(M10)				9.0		N·m
	Mounting torque(M6)				5.0		N·m
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				785		g
Outline							

OUTLINE DRAWING & CIRCUIT DIAGRAM

MT



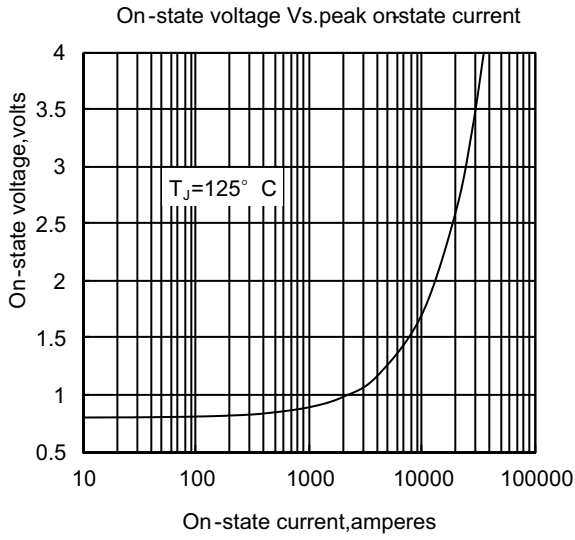


Fig1

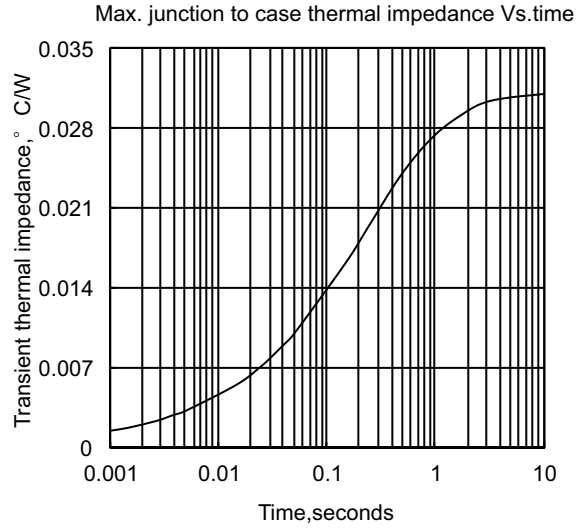


Fig2

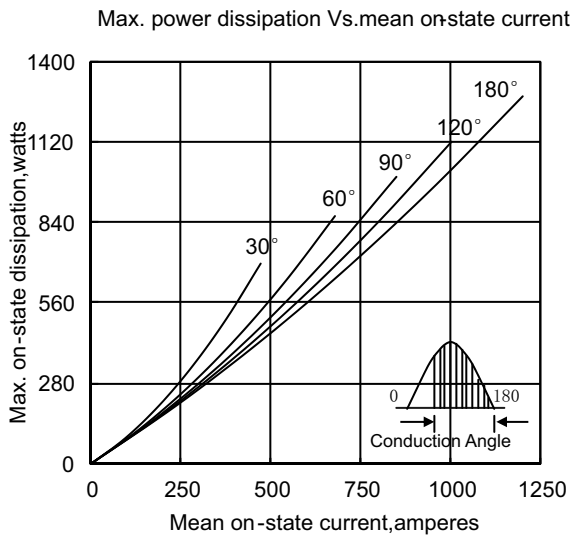


Fig3

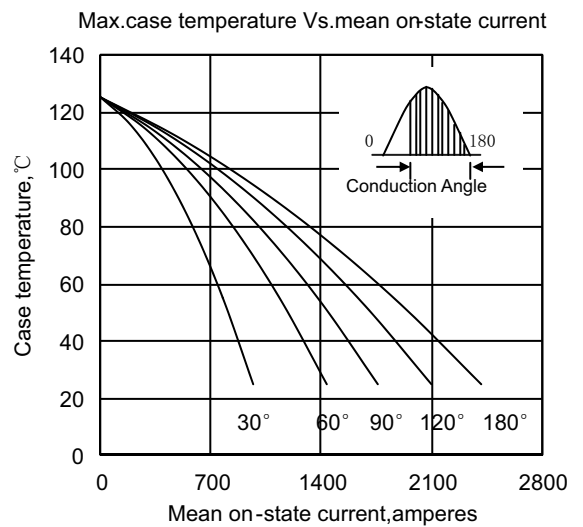


Fig4

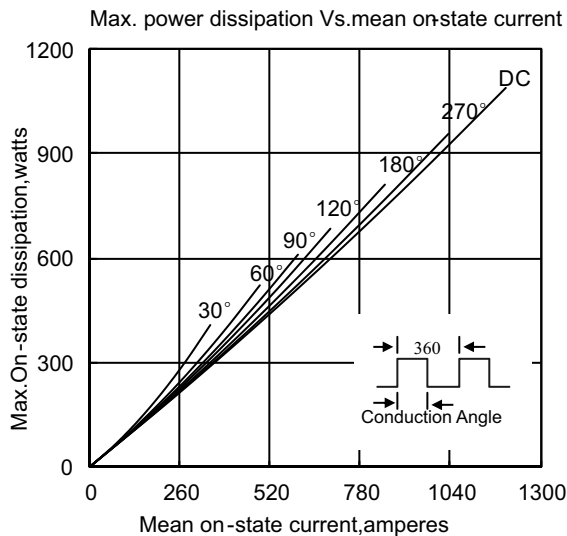


Fig5

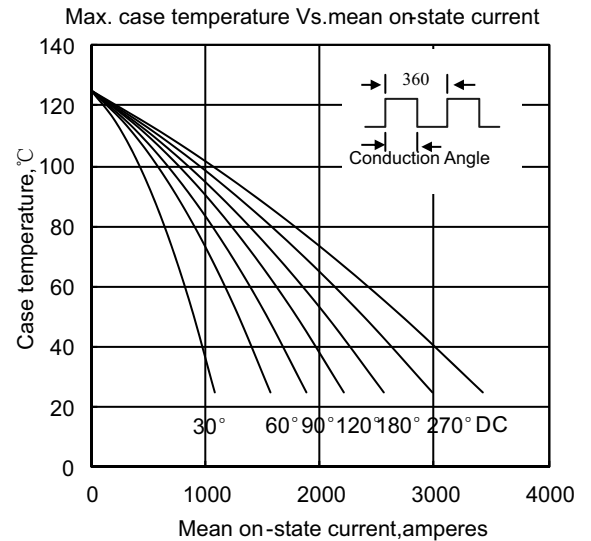


Fig6

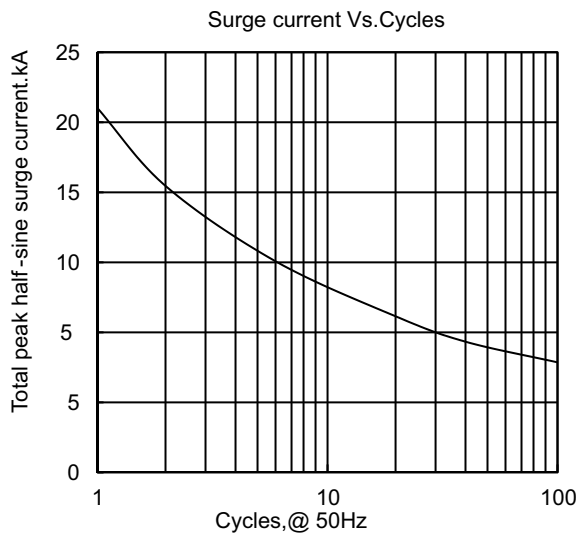


Fig7

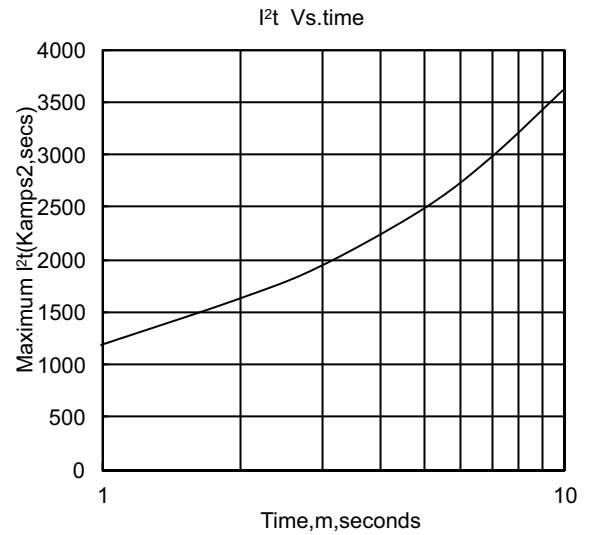


Fig8

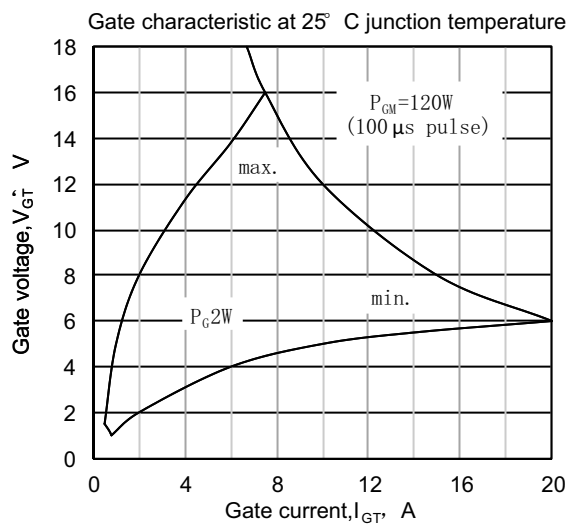


Fig9

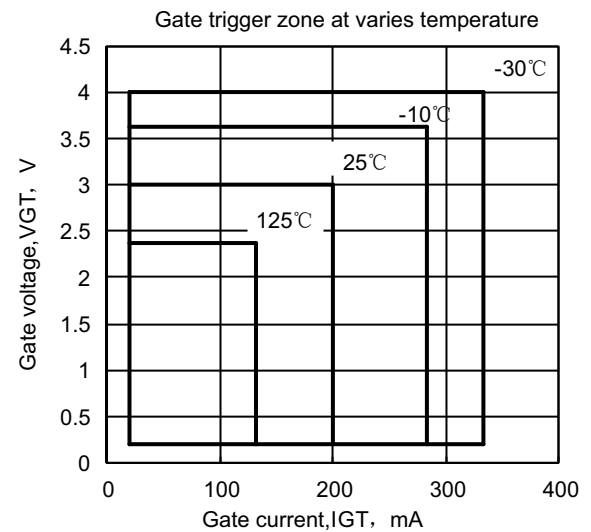


Fig10

Outside Dimension

