**Features:**

- n Isolated mounting base 2500V~
- n Pressure contact technology with Increased power cycling capability
- n Space and weight saving

Typical Applications

- n Inverter
- n Inductive heating
- n Chopper

V _{DRM} , V _{R_{RRM}}	Type & Outline	
	Type	Outline
800V	MKx400-08-416F3	MHx400-08-416F3
1000V	MKx400-10-416F3	MHx400-10-416F3
1200V	MKx400-12-416F3	MHx400-12-416F3
1400V	MKx400-14-416F3	MHx400-14-416F3
1600V	MKx400-16-416F3	MHx400-16-416F3
1800V	MKx400-18-416F3	MHx400-18-416F3

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 =85°C	125			400	A
I _{T(RMS)}	RMS on-state current					628	A
I _{DRM} I _{R_{RRM}}	Repetitive peak current	at V _{DRM} at V _{R_{RRM}}	125			100	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			8	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{R_{RRM}}				320	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.83	V
r _T	On-state slope resistance					0.72	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =1200A	25			2.40	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			200	A/μs
Q _{rr}	Recovery charge	I _{TM} =300A, t _p =4000μs, di/dt=-20A/μs, V _R =100V	125		650		μC
t _q	Circuit commutated turn-off time	I _{TM} =300A, t _p =4000μs, V _R =100V dv/dt=30V/μs, di/dt=-20A/μs	125	15		35	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			10		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				0.065	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled per chip				0.023	°C/W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		2500			V
F _m	Terminal connection torque(M10)				12.0		N·m
	Mounting torque(M6)				6.0		N·m
T _{vj}	Junction temperature			-40		115	°C
T _{stg}	Stored temperature			-40		115	°C
W _t	Weight				1500		g
Outline	416F3						

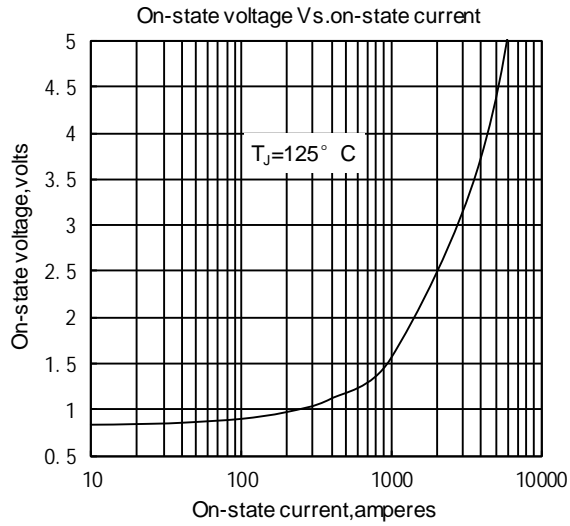


Fig.1

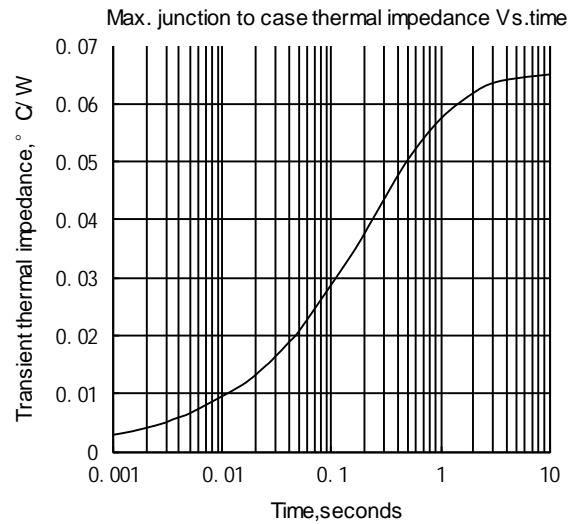


Fig.2

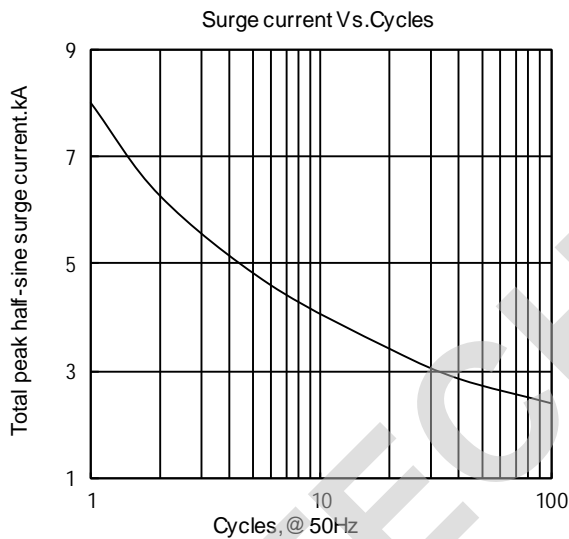


Fig.3

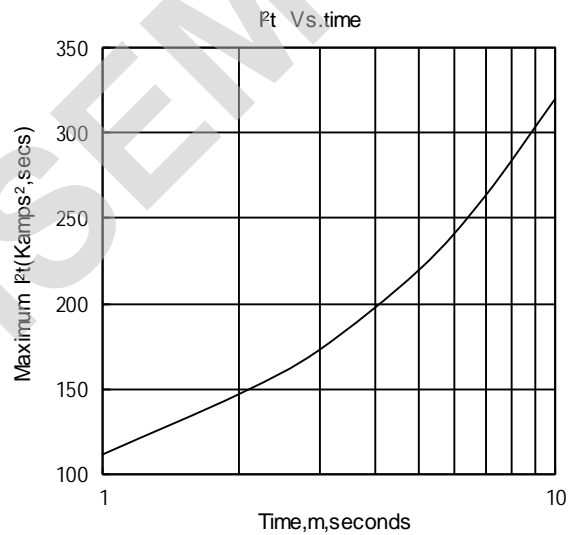


Fig.4

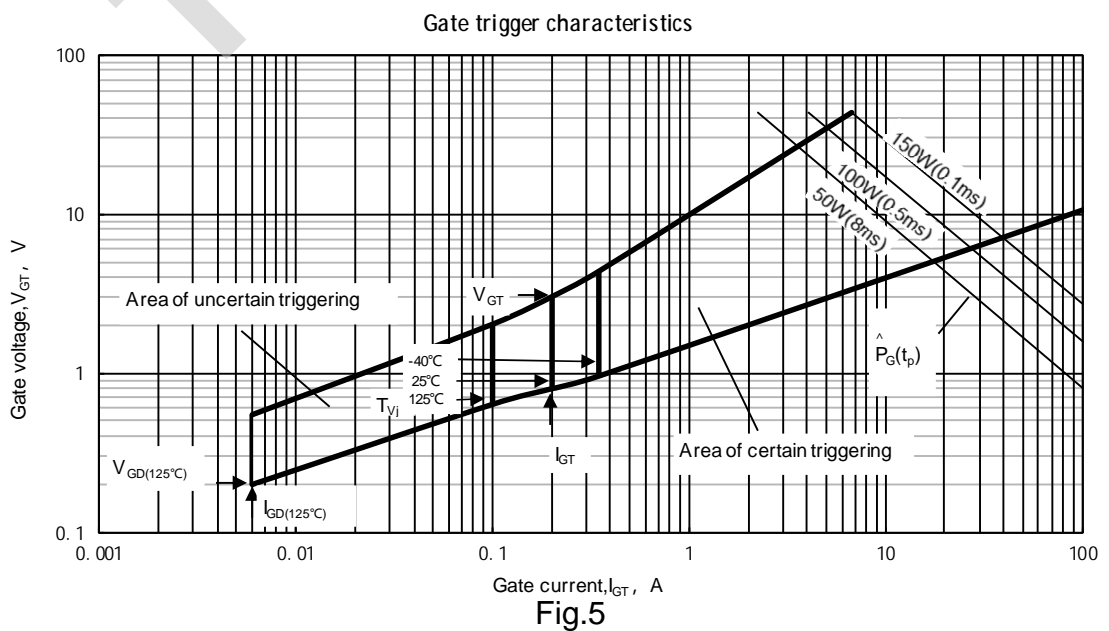
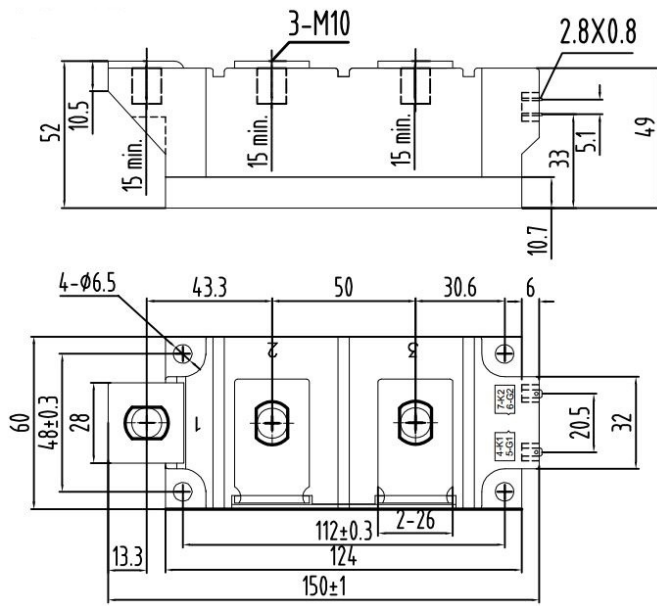


Fig.5

Outline:



Unmarked dimensional tolerance: ±0.5mm

TECHSEM reserves the right to change specifications without notice.

