

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 _{RRM} , V _{DRM}	Type & Outline	
800V	MKx400-08-406F3	MHx400-08-406F3
1000V	MKx400-10-406F3	MHx400-10-406F3
1200V	MKx400-12-406F3	MHx400-12-406F3
1400V	MKx400-14-406F3	MHx400-14-406F3
1600V	MKx400-16-406F3	MHx400-16-406F3
1800V	MKx400-18-406F3	MHx400-18-406F3
1800V	MK400-18-406F3G	

MKx stands for any type of **MKC, MKA, MKK**

MHx stands for any type of **MHC, MHA, MHK**

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 =55°C	125			400	A	
I _{T(RMS)}	RMS on-state current					628	A	
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			80	mA	
I _{TSM}	Surge on-state current	10ms half sine wave V _R =60%V _{RRM}	125			7.8	kA	
I ² t	I ² t for fusing coordination					310	10 ³ A ² s	
V _{TO}	Threshold voltage		125			1.22	V	
r _T	On-state slope resistance					0.80	mW	
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	
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	20		40	μs	
			25	6		16	μs	
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25			30	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				0.087	°C /W	
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled per chip				0.040	°C /W	
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		2500			V	
F _m	Terminal connection torque(M10)			10.0		12.0	N·m	
	Mounting torque(M6)			4.5		6.0	N·m	
T _{vj}	Junction temperature			-40		125	°C	
T _{stg}	Stored temperature			-40		125	°C	
W _t	Weight				1580		g	
Outline	406F3							

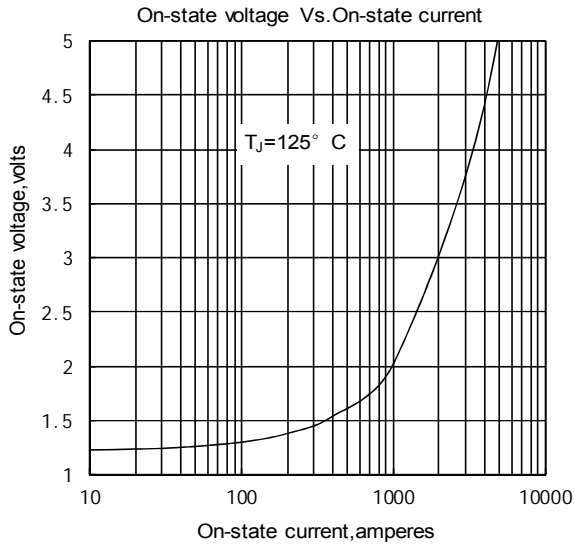


Fig.1

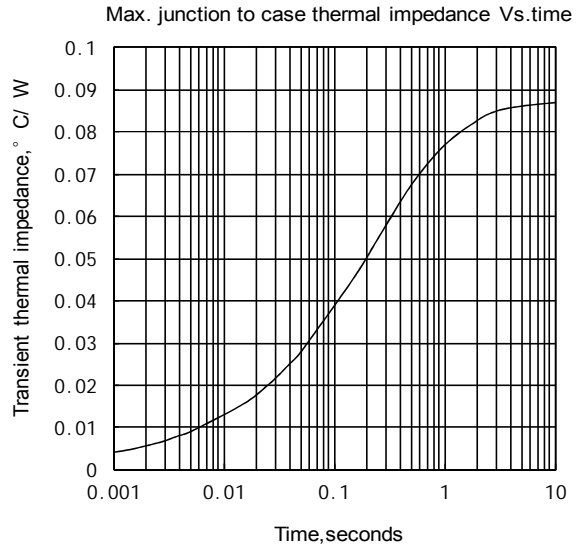


Fig.2

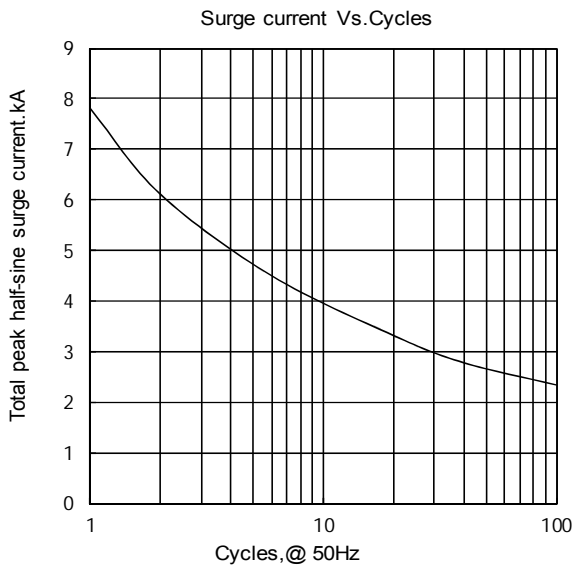


Fig.3

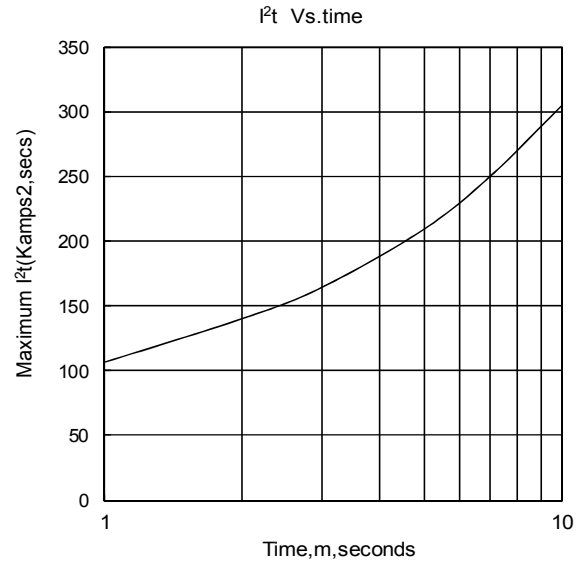


Fig.4

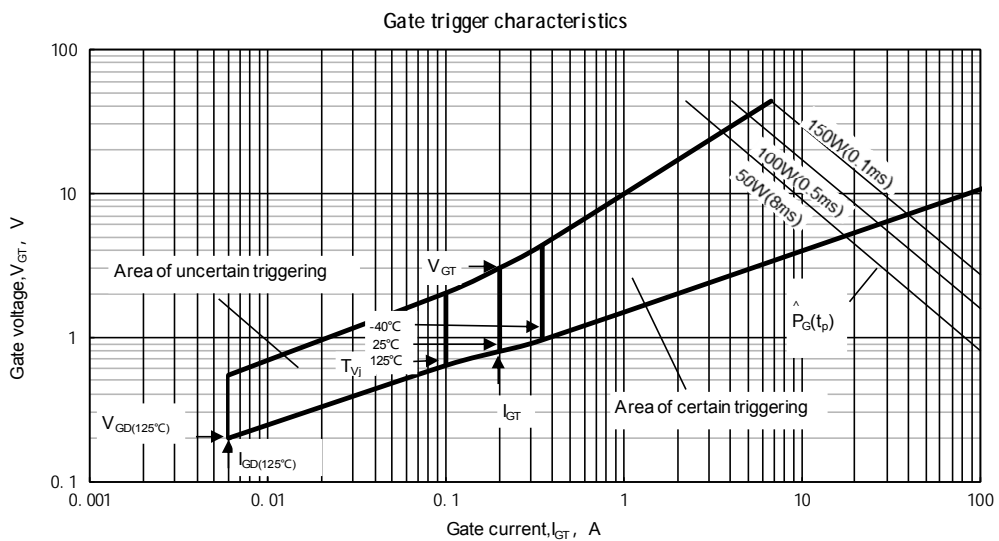
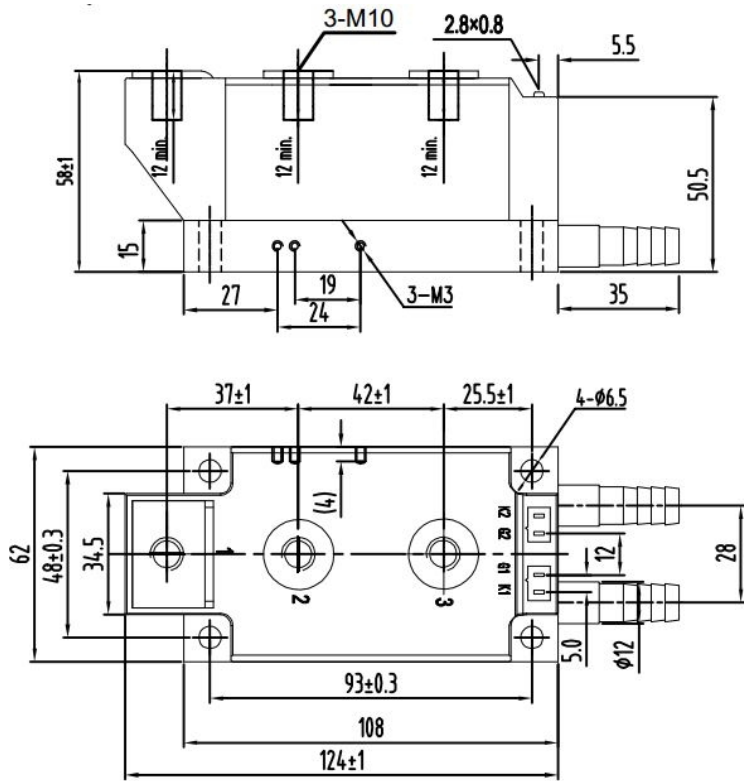


Fig.5

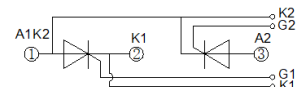
Outline:



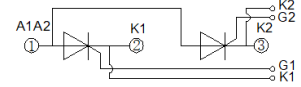
Unmarked dimensional tolerance: ±0.5mm

TECHSEM reserves the right to change specifications without notice.

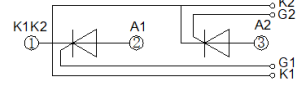
MKC



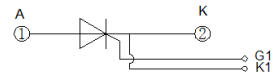
MKA



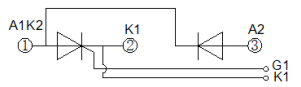
MKK



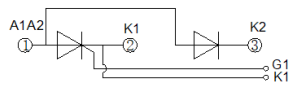
MK (G)



MHC (KZ)



MHA (KZ)



MFK (TD)

