

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	
600V	MKx300-06-415F3	MHx300-06-415F3
800V	MKx300-08-415F3	MHx300-08-415F3
1000V	MKx300-10-415F3	MHx300-10-415F3
1200V	MKx300-12-415F3	MHx300-12-415F3
1400V	MKx300-14-415F3	MHx300-14-415F3
1600V	MKx300-16-415F3	MHx300-16-415F3
1800V	MKx300-18-415F3	MHx300-18-415F3
1800V	MK300-18-415F3G	

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 =85°C	125			300	A
I _{T(RMS)}	RMS on-state current					471	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	125			7.30	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{RRM}				266	10 ³ A ² s
V _{TO}	Threshold voltage		125			1.36	V
r _T	On-state slope resistance					0.38	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =900A	25			2.20	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			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
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	30		200	mA
V _{GT}	Gate trigger voltage			1.0		3.0	V
I _H	Holding current			20		200	mA
I _L	Latching current					1000	mA
V _{GD}	Non-trigger gate voltage			V _{DM} = 67%V _{DRM}	125		
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled per chip				0.080	°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				1260		g
Outline	415F3						

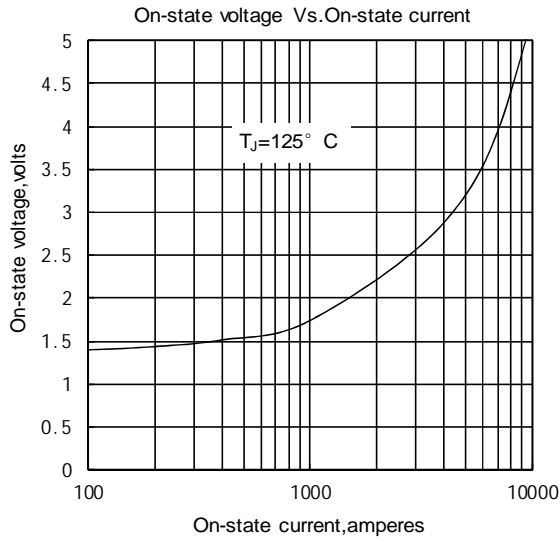


Fig.1

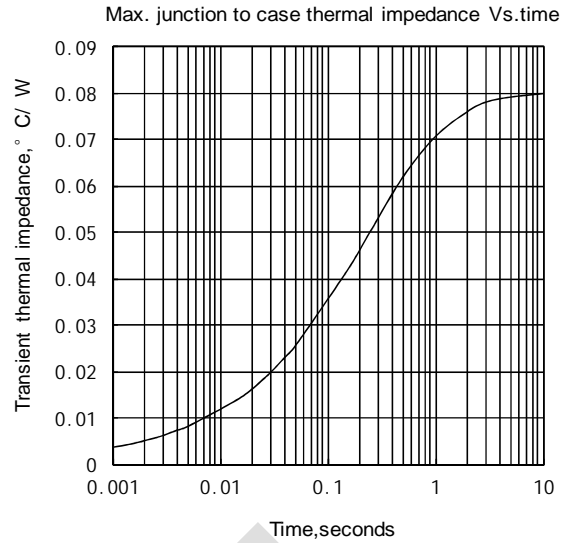


Fig.2

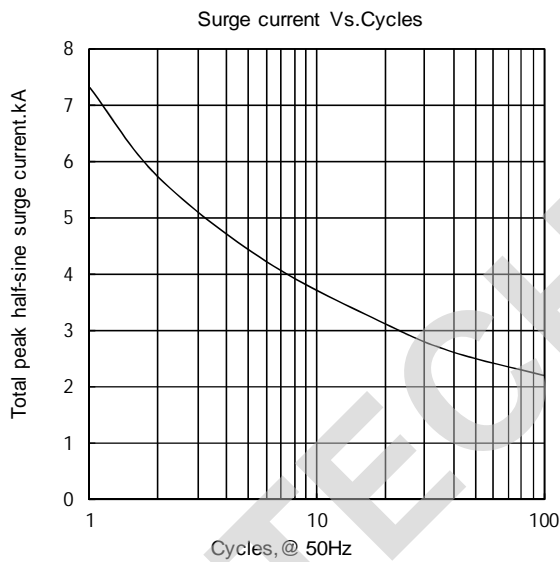


Fig.3

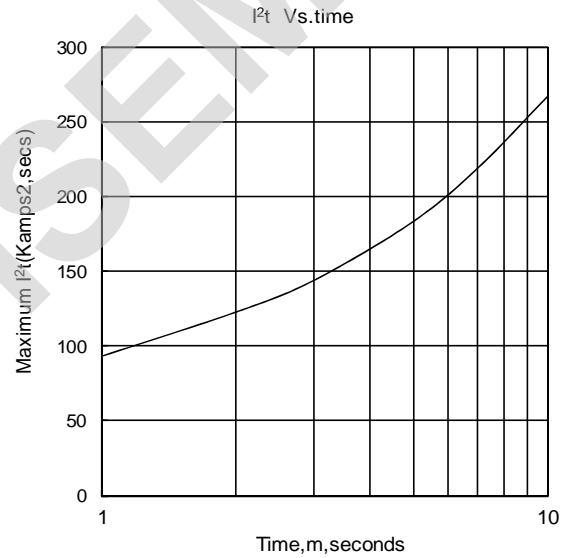


Fig.4

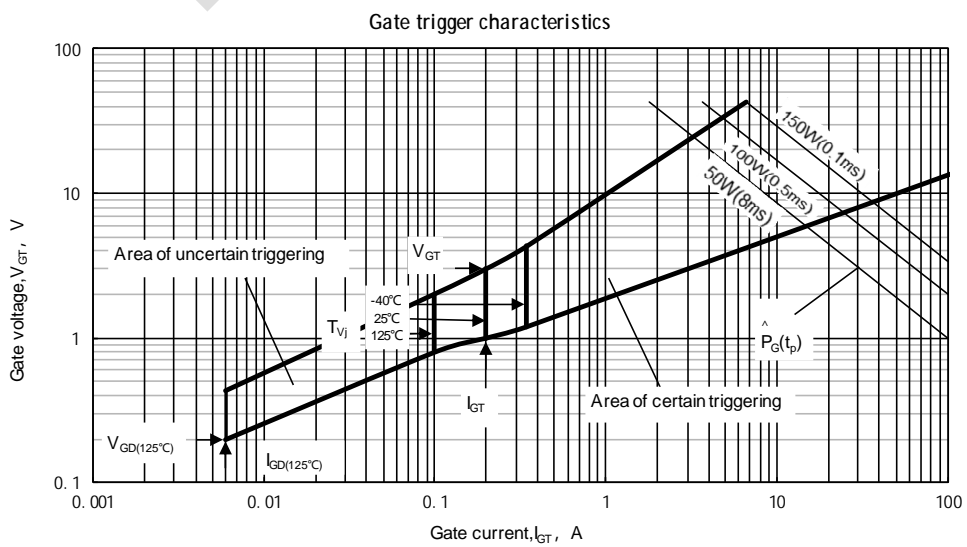
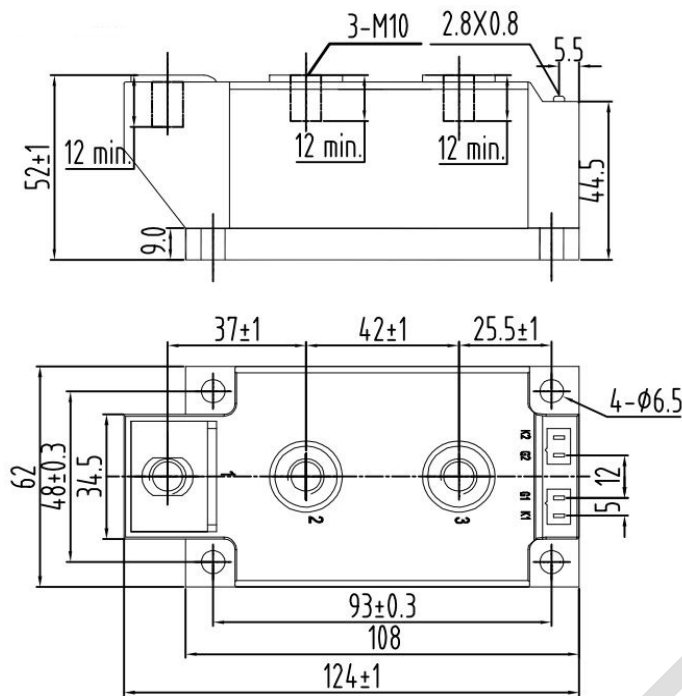


Fig.5

Outline:



Unmarked dimensional tolerance: ± 0.5 mm

TECHSEM reserves the right to change specifications without notice.

