**Features :**

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

**Typical Applications**

- Inverter
- Inductive heating
- Chopper

$V_{DSM}, V_{RSM}$	$V_{DRM}, V_{RRM}$	Type & Outline
700V	600V	MKx300-06-405F3
900V	800V	MKx300-08-405F3
1100V	1000V	MKx300-10-405F3
1300V	1200V	MKx300-12-405F3
1500V	1400V	MKx300-14-405F3
1700V	1600V	MKx300-16-405F3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=55^{\circ}C$	115			300	A
$I_{T(RMS)}$	RMS on-state current					471	A
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	at $V_{DRM}$ at $V_{RRM}$	115			50	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	115			5.60	kA
$I^2t$	$I^2t$ for fusing coordination					160	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage		115			0.90	V
$r_T$	On-state slope resistance					1.17	$m\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=900A$	25			2.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	115			800	V/ $\mu s$
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	115			200	A/ $\mu s$
tq	Circuit commutated turn-off time	$I_{TM}=300A, t_p=1000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$	115	15		35	$\mu s$
$t_{rr}$	Reverse recovery time	$I_{FM}=300A, t_p=1000\mu s,$ $-di/dt=20A/\mu s, V_R=50V$	115		3.0		$\mu s$
$I_{GT}$	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
$V_{GD}$	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	115	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.110	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.040	$^{\circ}C/W$
$V_{iso}$	Isolation voltage	50Hz, R.M.S, $t=1min, I_{iso}:1mA(MAX)$		2500			V
$F_m$	Terminal connection torque(M8)				12.0		N·m
	Mounting torque(M6)				6.0		N·m
$T_{vj}$	Junction temperature			-40		125	$^{\circ}C$
$T_{stg}$	Stored temperature			-40		125	$^{\circ}C$
$W_t$	Weight				1055		g
Outline	405F3						

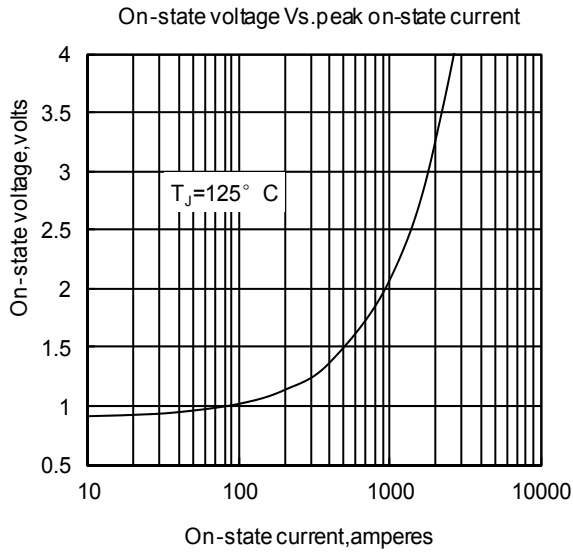


Fig1

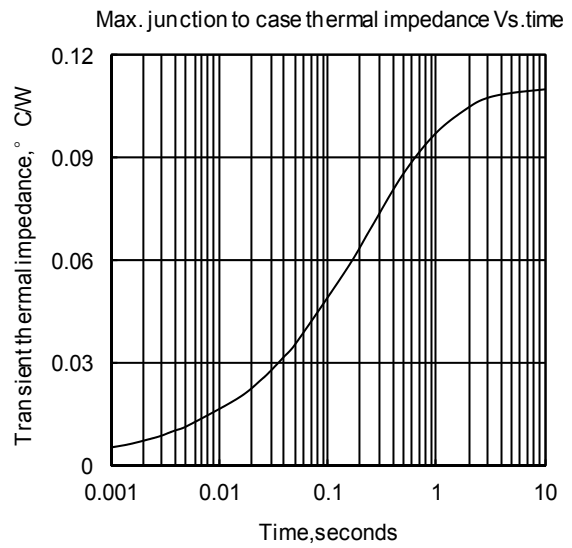


Fig2

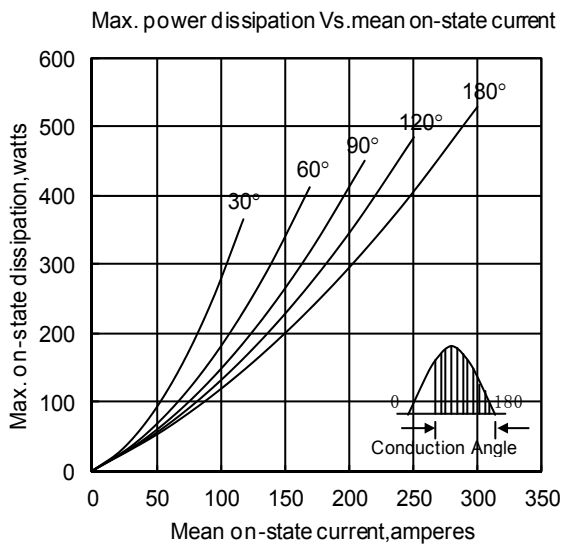


Fig3

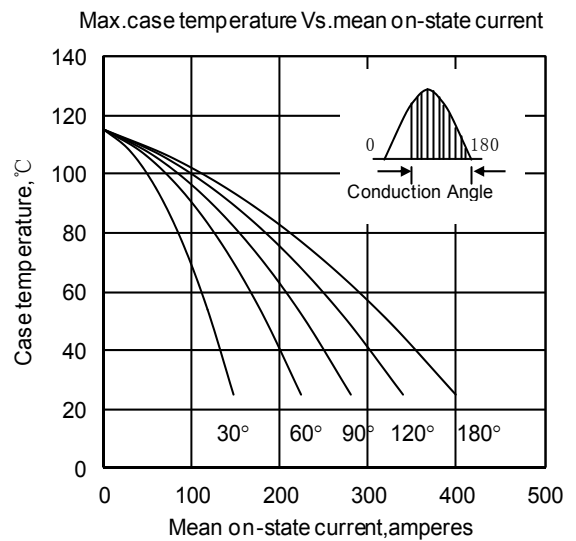


Fig4

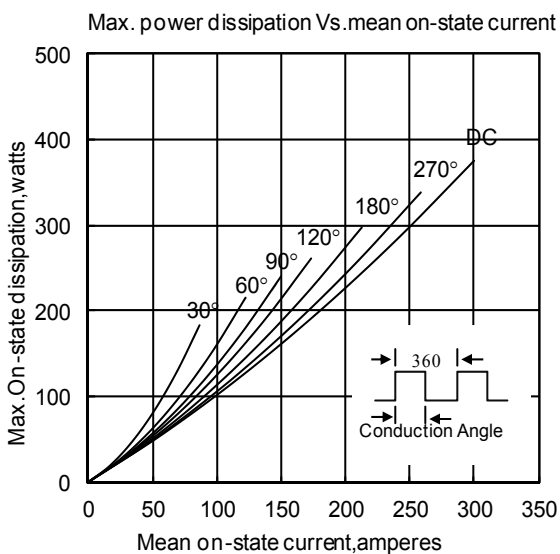


Fig5

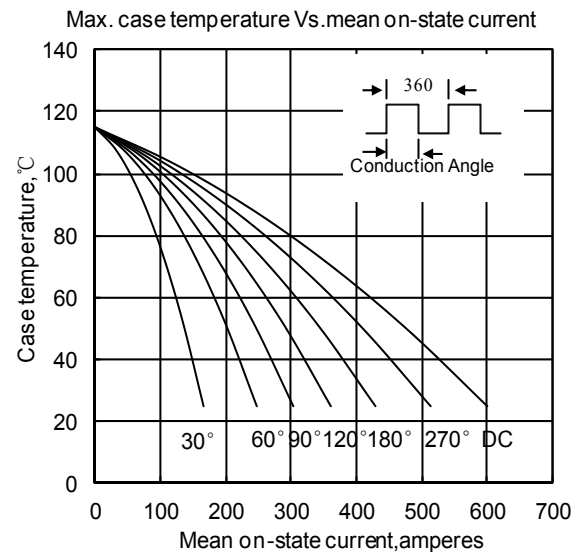


Fig6

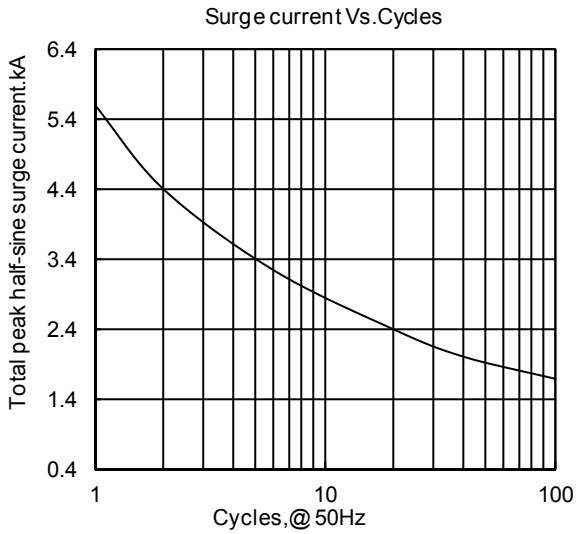


Fig7

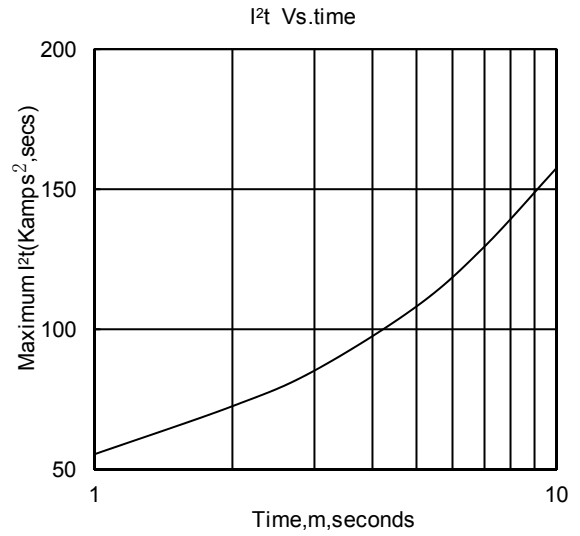


Fig8

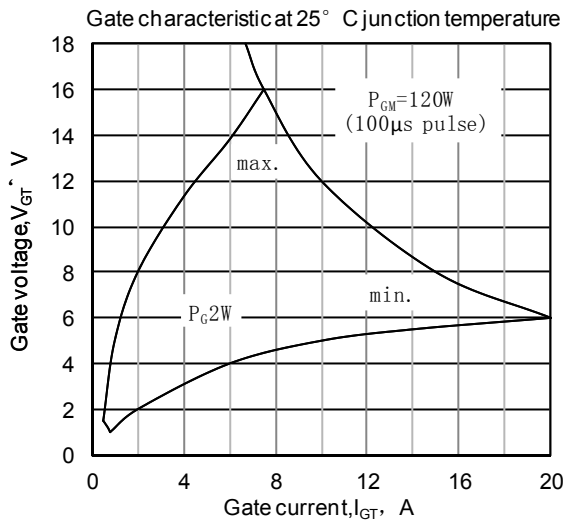


Fig9

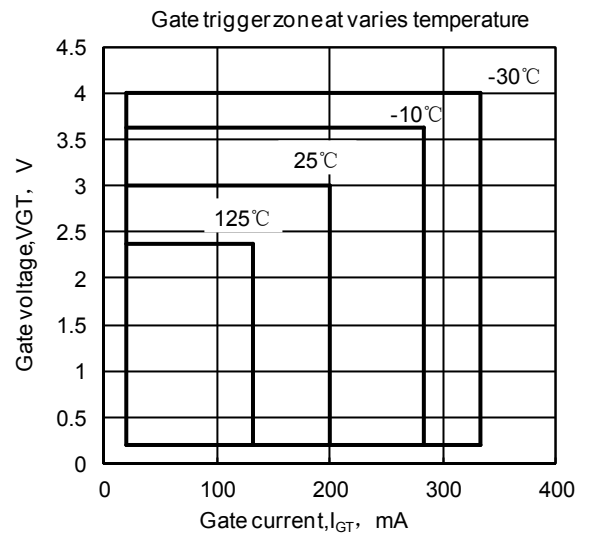


Fig10

Outline:

