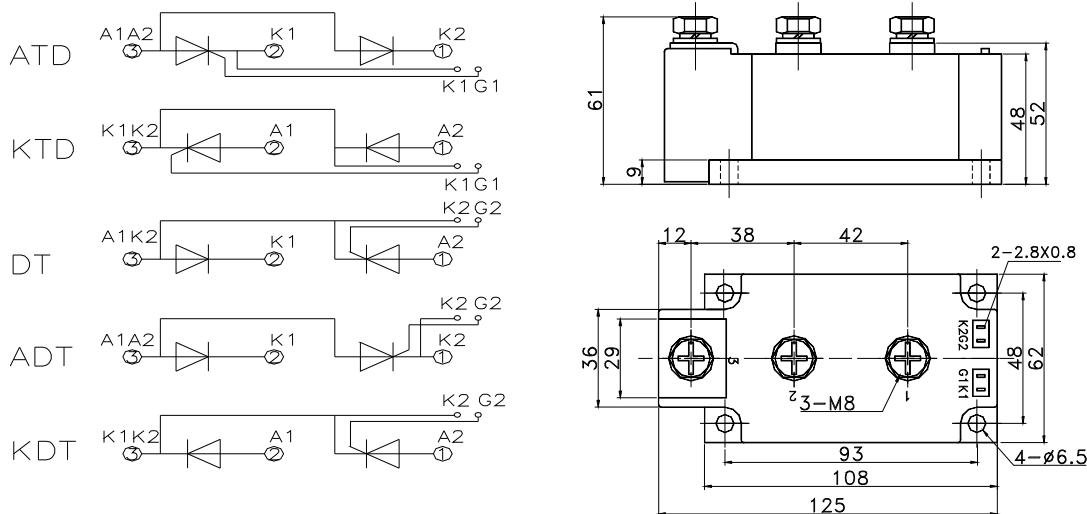


TD300 ATD300 KTD300 DT300 ADT300 KDT300

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}\text{C})$	VALUE			UNIT
				Min	Type	Max	
$I_{T(\text{AV})}$ $I_{F(\text{AV})}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_C=85^{\circ}\text{C}$	125			300	A
$I_{T(\text{RMS})}$	RMS on-state current	Single side cooled, $T_C=85^{\circ}\text{C}$	125			471	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{\text{DRM}} \& V_{\text{RRM}} \text{ tp}=10\text{ms}$ $V_{\text{DsM}} \& V_{\text{RsM}} = V_{\text{DRM}} \& V_{\text{RRM}} + 200\text{V}$ respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			9.30	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{\text{RRM}}$				441	$\text{A}^2\text{s} \times 10^3$
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.72	$\text{m}\Omega$
V_{TM}	Peak on-state voltage	$I_{\text{TM}}=900\text{A}$	125			1.58	V
dv/dt	Critical rate of rise of off-state voltage	$V_{\text{DM}}=67\%V_{\text{DRM}}$	125			800	$\text{V}/\mu\text{s}$
di/dt	Critical rate of rise of on-state current	From 67% V_{DRM} to 900A, Gate source 1.5A $t_r \leq 0.5\mu\text{s}$ Repetitive	125			100	$\text{A}/\mu\text{s}$
I_{GT}	Gate trigger current		25	30		180	mA
V_{GT}	Gate trigger voltage	$V_A=12\text{V}, I_A=1\text{A}$		1.0		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	125			0.2	V
$R_{\text{th(j-c)}}$	Thermal resistance Junction to heatsink	At 180° sine Single side cooled				0.100	$^{\circ}\text{C}/\text{W}$
V_{iso}	Isolation voltage	50Hz, R.M.S, t=1min, $I_{\text{iso}}:1\text{mA}(\text{MAX})$		2500			V
F_m	Thermal connection torque(M8)				0.45		N·m
	Mounting torque(M6)				0.30		N·m
T_{stg}	Stored temperature			-40		140	$^{\circ}\text{C}$
W_t	Weight				1340		g
Outline		402F3					

OUTLINE DRAWING & CIRCUIT DIAGRAM



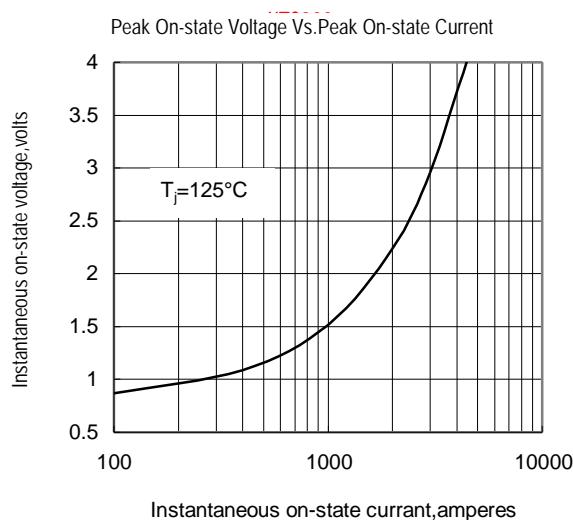


Fig.1

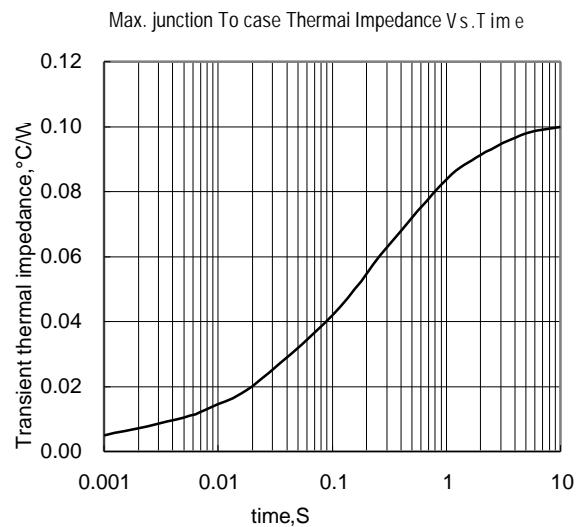


Fig.2

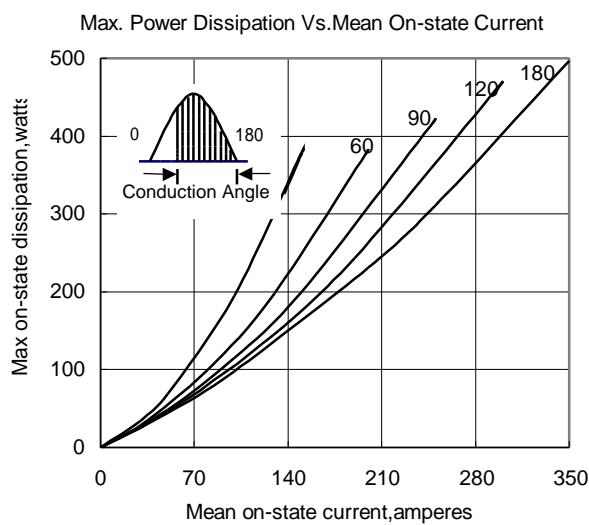


Fig.3

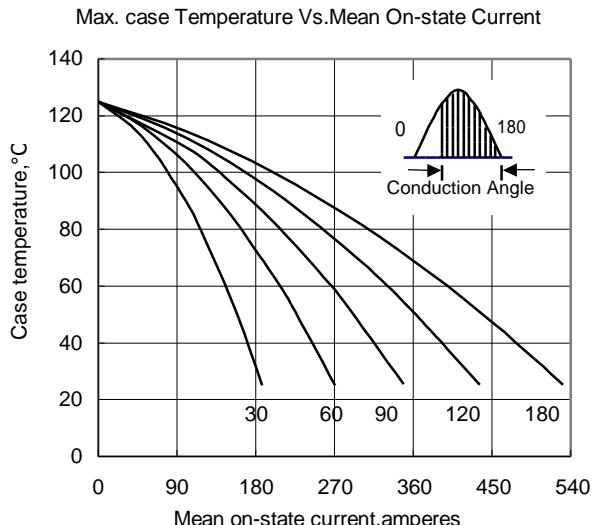


Fig.4

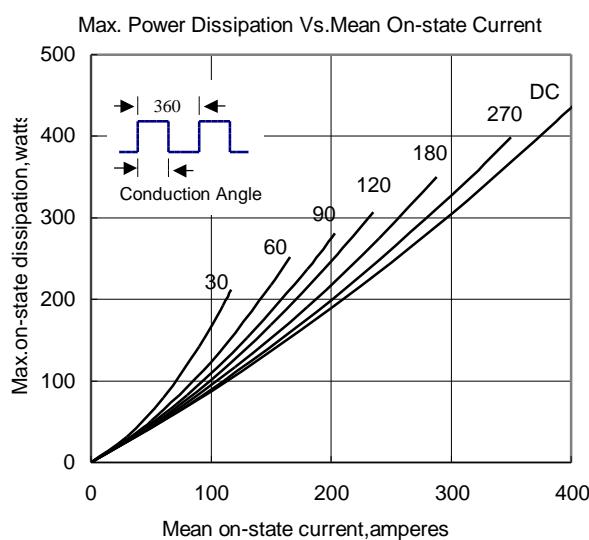


Fig.5

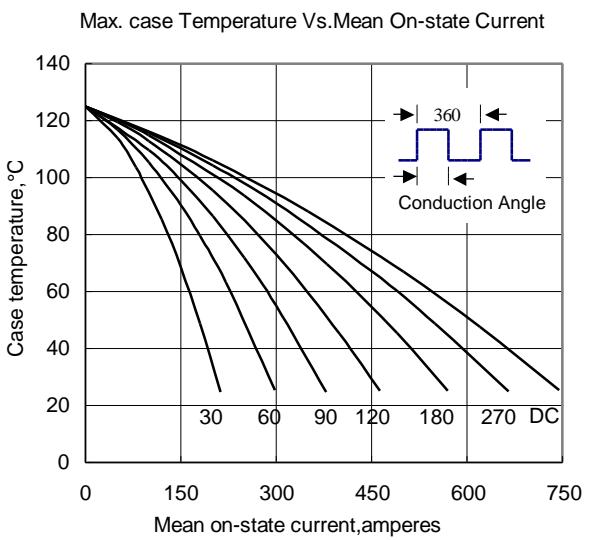


Fig.6

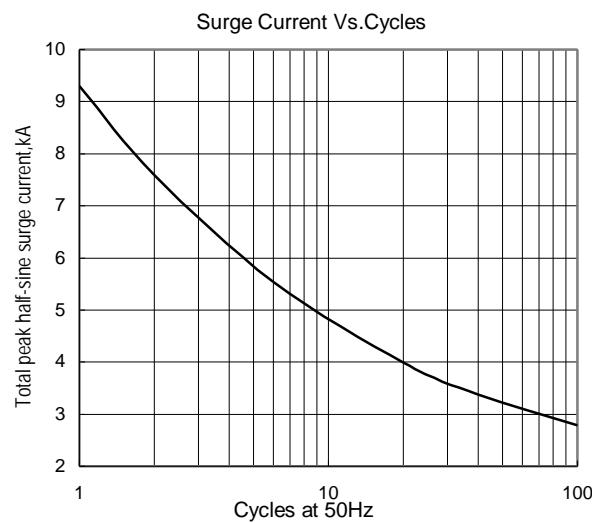


Fig.7

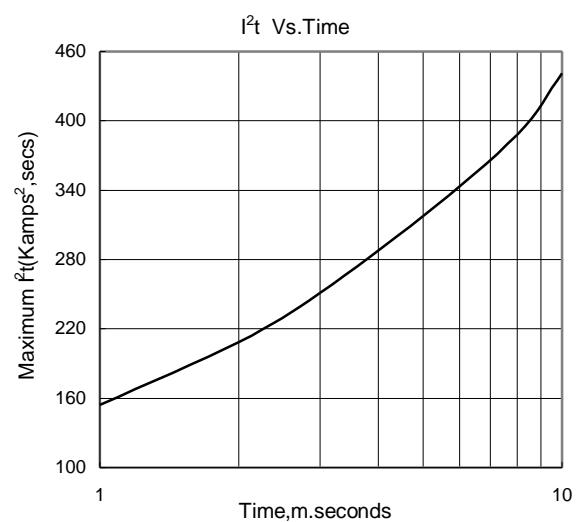


Fig.8

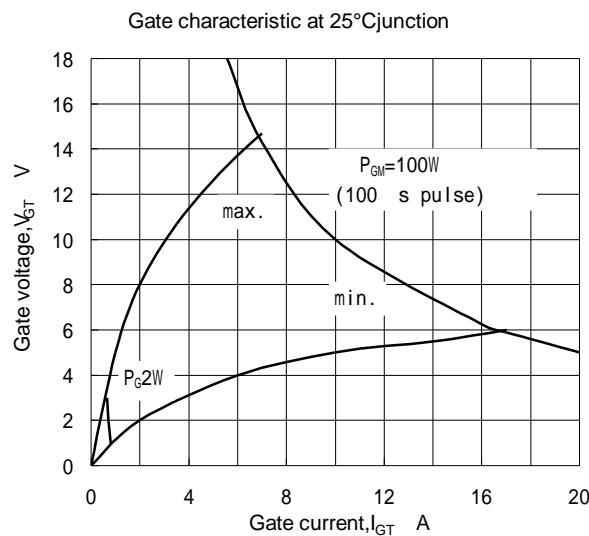


Fig.9

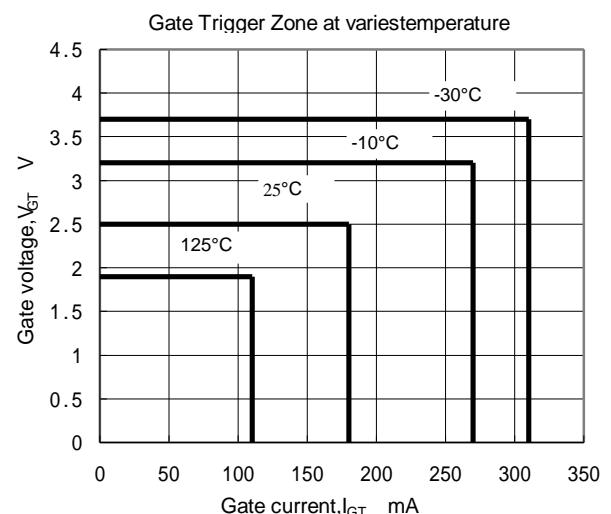


Fig.10