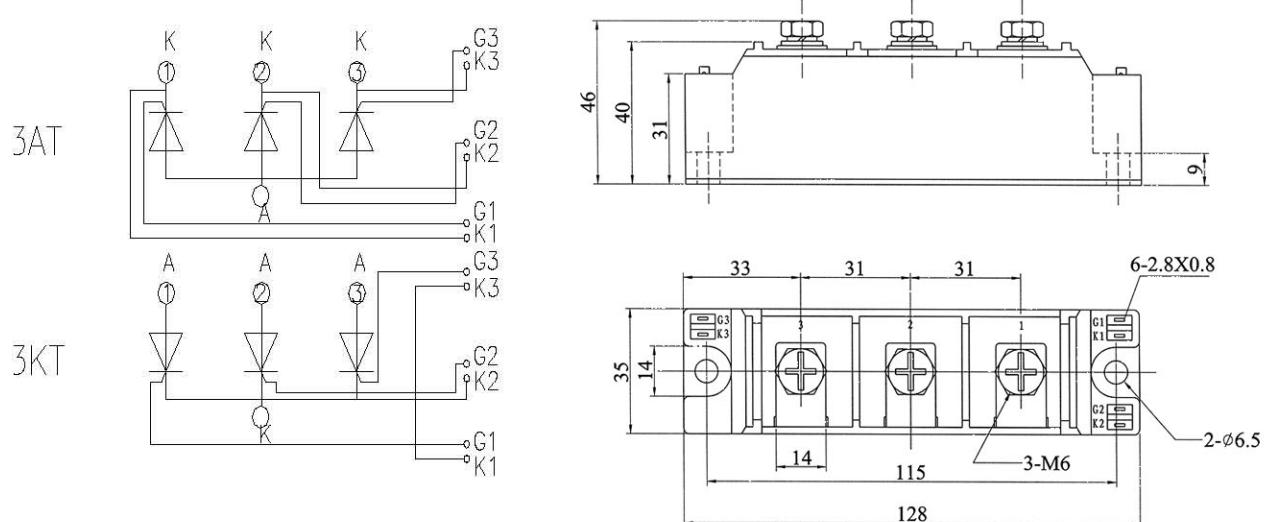


3AT250 3KT250 Charged part to case non-isolated

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, $T_c=90^\circ\text{C}$	125			250	A
$I_{T(RMS)}$	RMS on-state current	Single side cooled, $T_c=90^\circ\text{C}$	125			393	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{REM} = V_{DRM} \& V_{RRM} + 200\text{V}$ respectively	125	800		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			20	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	125			8.50	KA
I^2t	I^2t for fusing coordination					368	$\text{A}^2\text{s} \times 10^3$
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					1.02	$\text{m}\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=750\text{A}$	125			1.65	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			800	$\text{V}/\mu\text{s}$
di/dt	Critical rate of rise of on-state current	From 67% V_{DRM} to 750A, Gate source 1.5A $t \leq 0.5\mu\text{s}$ Repetitive	125			100	$\text{A}/\mu\text{s}$
I_{GT}	Gate trigger current			30		150	mA
V_{GT}	Gate trigger voltage	$V_A=12\text{V}$, $I_A=1\text{A}$	25	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
$R_{th(j-c)}$	Thermal resistance Junction to heatsink	Single side cooled				0.100	$^\circ\text{C}/\text{W}$
F_m	Thermal connection torque(M8)					0.45	N·m
	Mounting torque(M6)					0.30	N·m
T_{stg}	Stored temperature				-40		$^\circ\text{C}$
W_t	Weight					680	g
Outline			404F4				

OUTLINE DRAWING & CIRCUIT DIAGRAM



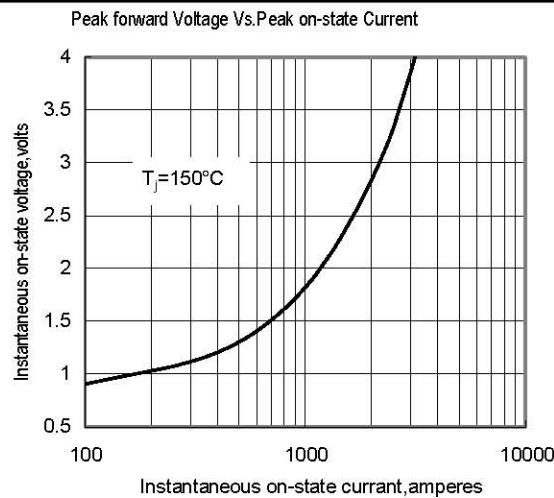


Fig.1

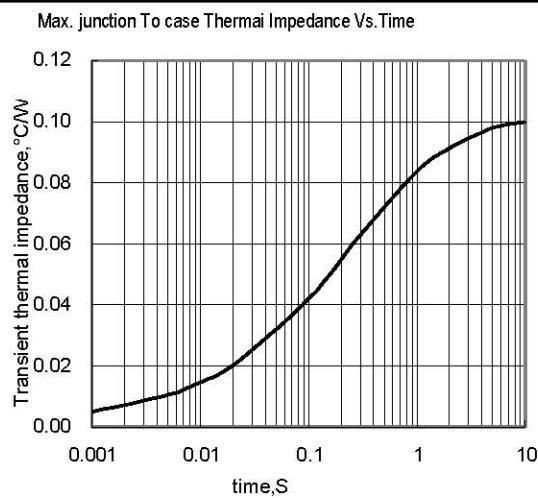


Fig.2

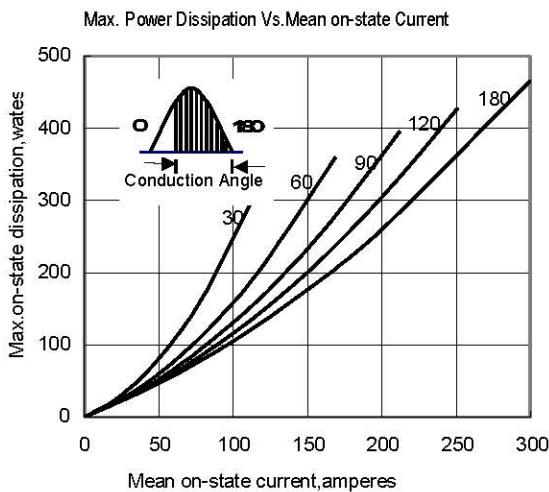


Fig.3

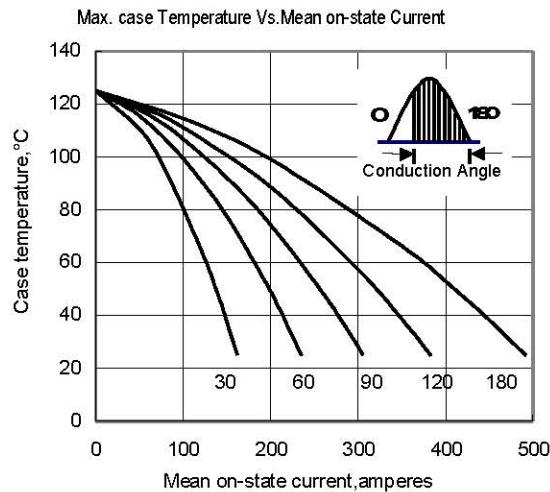


Fig.4

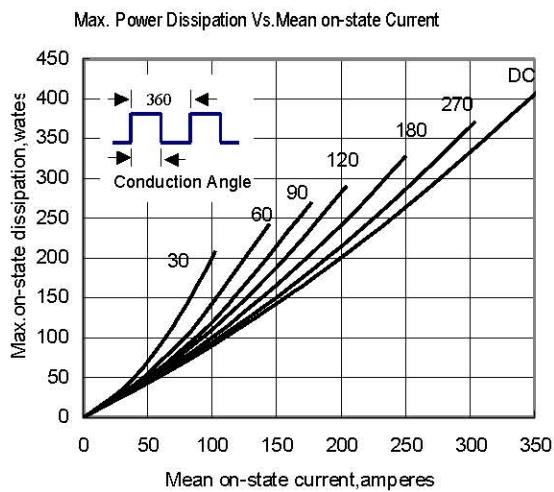


Fig.5

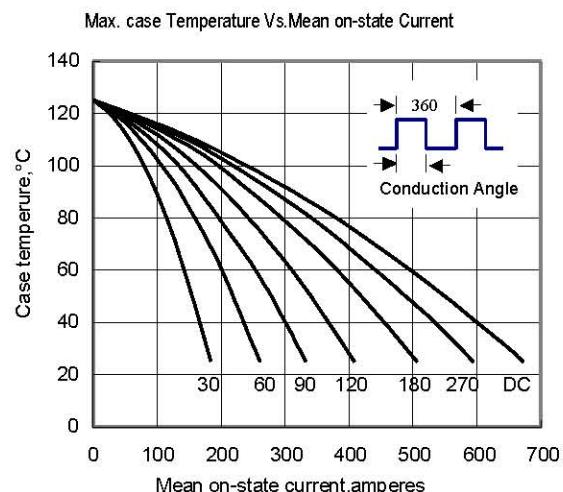


Fig.6