**Features**

- n Center amplifying gate
- n Metal case with ceramic insulator
- n Low on-state and switching losses

**Typical Applications**

- n AC controllers
- n DC and AC motor control
- n Controlled rectifiers

**Part No. Y55KPJ-KT50cTD**

**$I_{T(AV)}$  900A**  
 **$V_{DRM}, V_{RRM}$  3200V, 3500V**

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 Double side cooled,	$T_C=88^{\circ}C$	125		900	A
			$T_C=98^{\circ}C$	125		800	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$	125	3200		3500	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	at $V_{DRM}$ at $V_{RRM}$	125			120	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave $V_R=0$	25			20	kA
$I^2t$	$I^2t$ for fusing coordination					2000	$A^2s \cdot 10^3$
$I_{TSM}$	Surge on-state current		125			18	kA
$I^2t$	$I^2t$ for fusing coordination					1620	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage					1.18	V
$r_T$	On-state slope resistance		125			0.36	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=2500A, F=26kN$	25			2.08	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			1000	V/ $\mu s$
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$	125			200	A/ $\mu s$
$Q_{rr}$	Recovery charge	$I_{TM}=800A, t_p=4000\mu s, di/dt=-20A/\mu s,$ $V_R=100V$	125		1950		$\mu C$
$I_{rM}$	Recovery current				100		A
$t_q$	Circuit commutated turn-off time				350		$\mu s$
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25	90		250	mA
$V_{GT}$	Gate trigger voltage			0.8		2.5	V
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	-60			500	mA
$V_{GT}$	Gate trigger voltage					5.0	V
$I_H$	Holding current	$V_A=12V, I_A=1A$	25	20		300	mA
$I_L$	Latching current					1000	mA
$t_{gt}$	Turn-on time	$t_p \leq 200\mu s, I_A \geq 1A$	25		10		$\mu s$
$V_{GD}$	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125			0.3	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 24kN				0.018	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.006	
$F_m$	Mounting force			21		30	kN
$T_{vj}$	Junction temperature			-60		125	$^{\circ}C$
$T_{stg}$	Stored temperature			-60		60	$^{\circ}C$
$W_t$	Weight					550	g
Outline	KT50cTD						

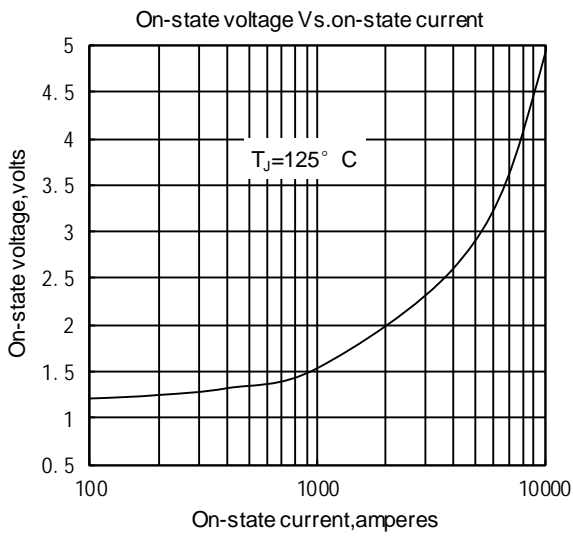


Fig.1

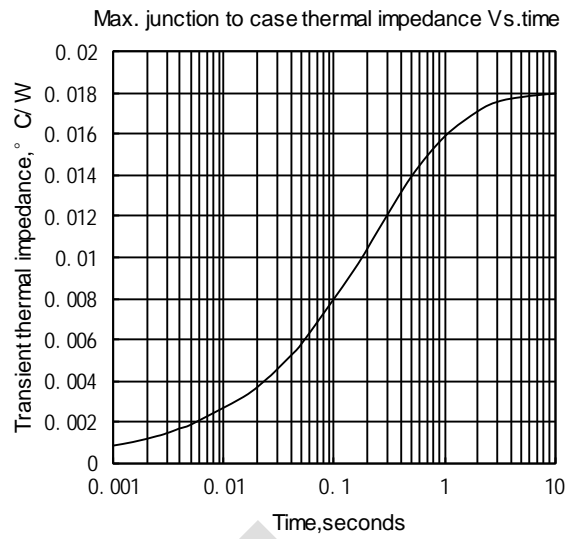


Fig.2

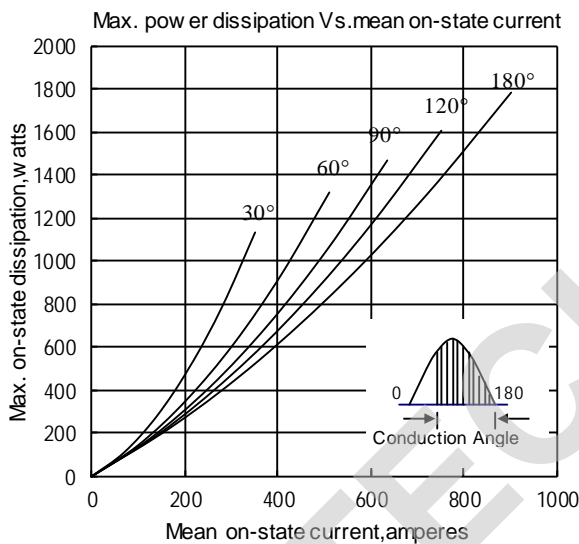


Fig.3

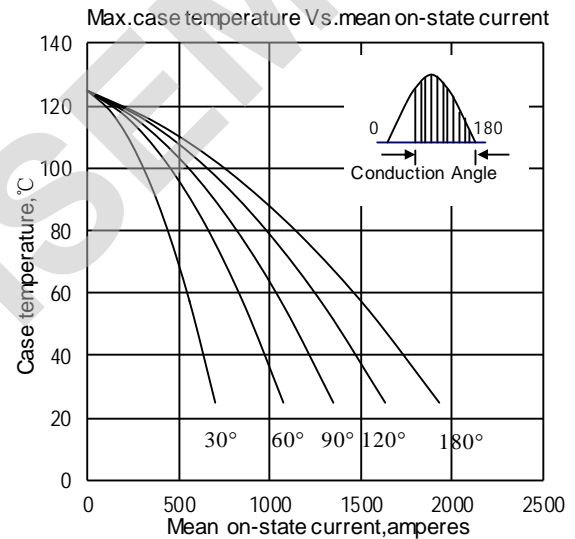


Fig.4

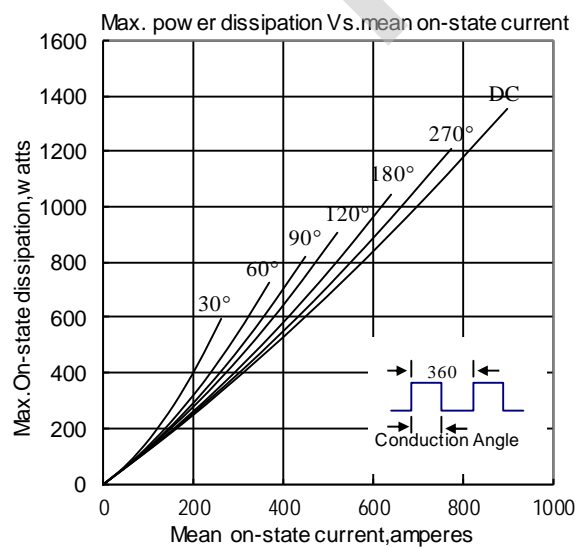


Fig.5

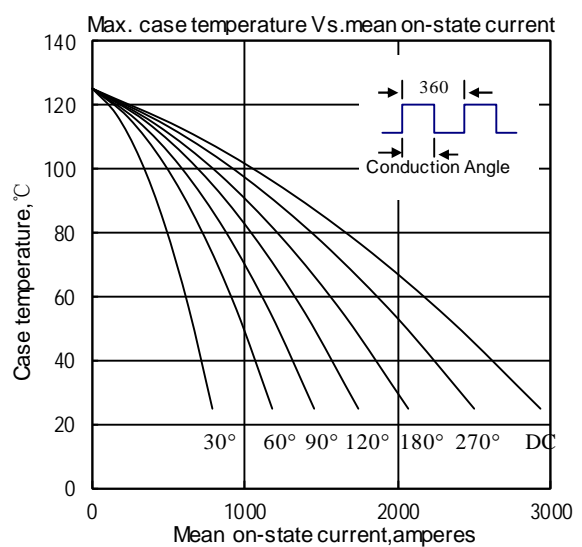


Fig.6

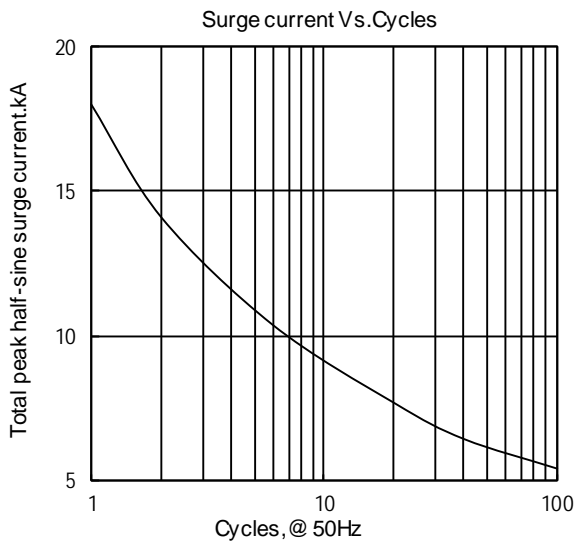


Fig.7

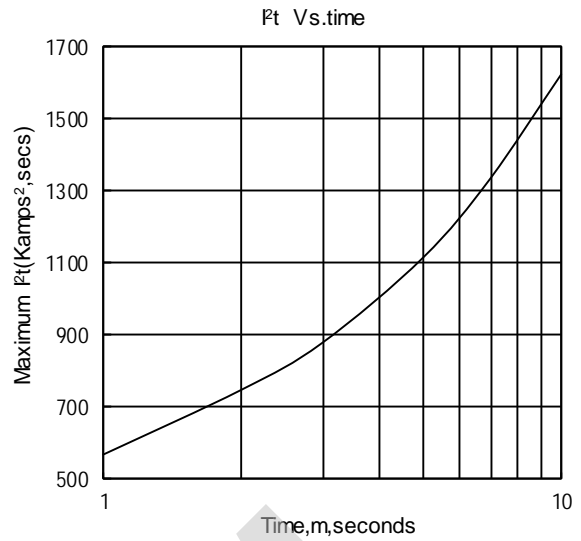


Fig.8

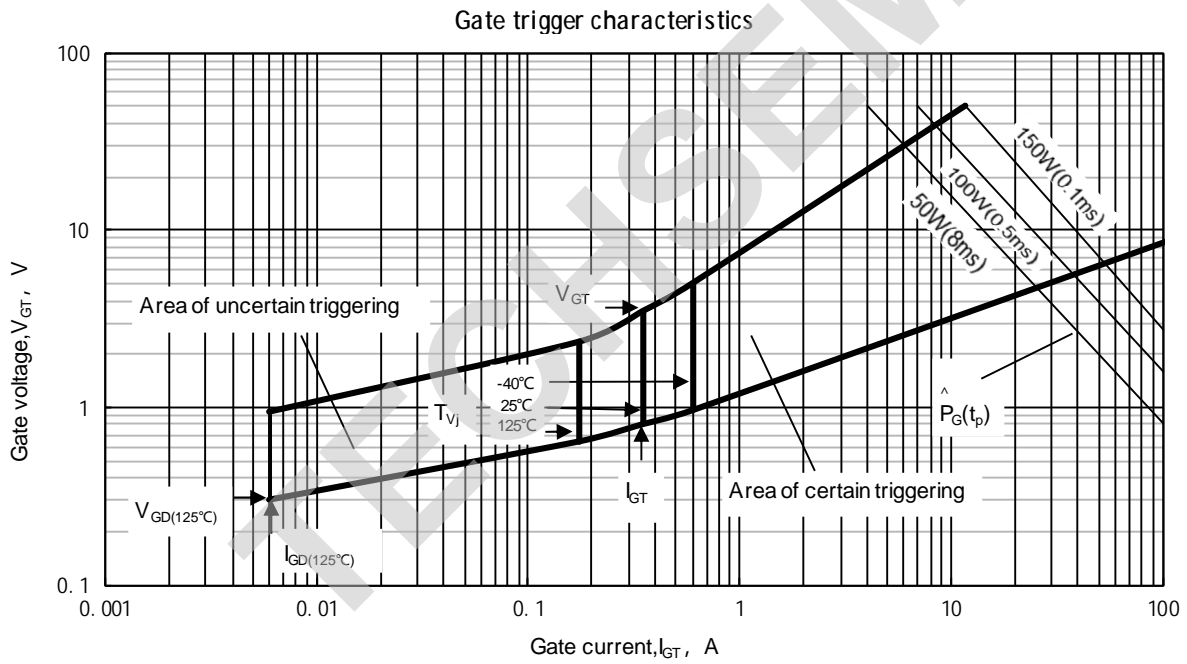
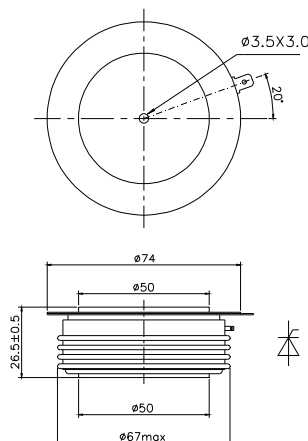


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.