**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. Y45KPE-KT44cT**

$I_{T(AV)}$	<b>1250A</b>
$V_{DRM}, V_{RRM}$	<b>1200V 1400V</b>
	<b>1600V 1800V</b>

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	$T_C=70^{\circ}C$	125		1250	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$	125	1100		1800	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	at $V_{DRM}$ at $V_{RRM}$	125			60	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			13	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$				845	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage		125			0.93	V
$r_T$	On-state slope resistance					0.29	m
$V_{TM}$	Peak on-state voltage	$I_{TM}=3000A, F=21kN$	25			2.20	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	$V_{DM}=67\%V_{DRM}$ to 1500A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			150	A/ $\mu s$
$Q_{rr}$	Recovery charge	$I_{TM}=1000A, t_p=4000\mu s, di/dt=-20A/\mu s,$ $V_R=100V$	125		1200		$\mu C$
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25	40		300	mA
$V_{GT}$	Gate trigger voltage			0.8		3.0	V
$I_H$	Holding current			20		250	mA
$I_L$	Latching current					500	mA
$V_{GD}$	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 21kN				0.024	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.006	
$F_m$	Mounting force			18		25	kN
$T_{vj}$	Junction temperature			-40		125	$^{\circ}C$
$T_{stg}$	Stored temperature			-40		140	$^{\circ}C$
$W_t$	Weight					380	g
Outline	KT44cT						

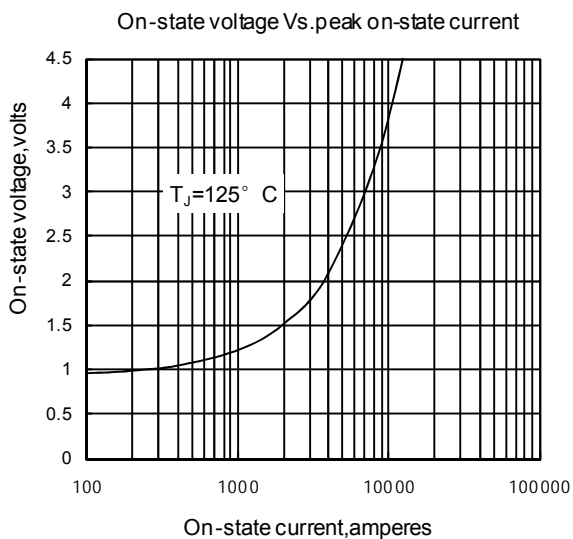


Fig1

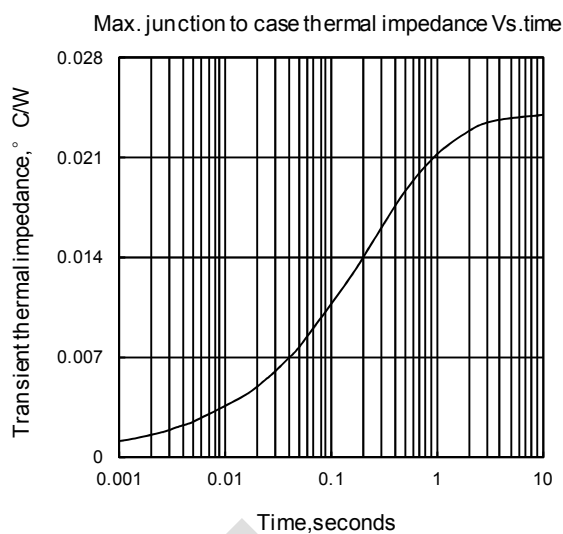


Fig2

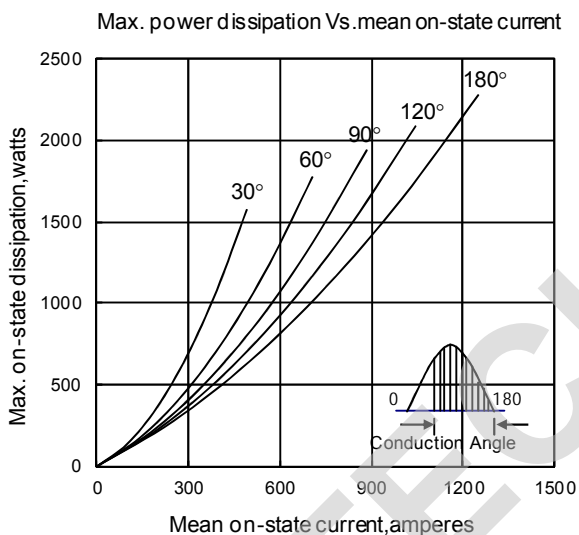


Fig3

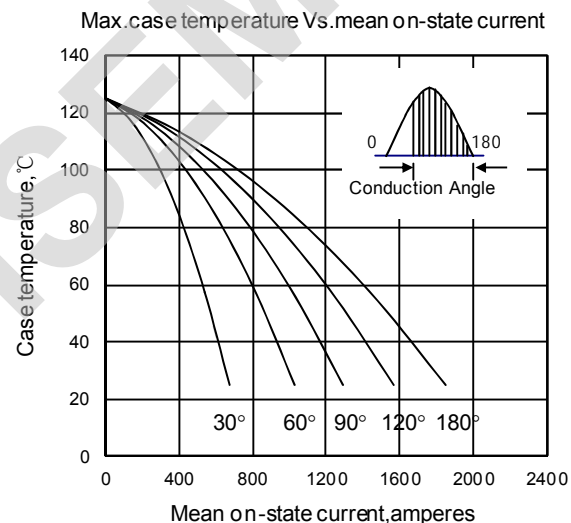


Fig4

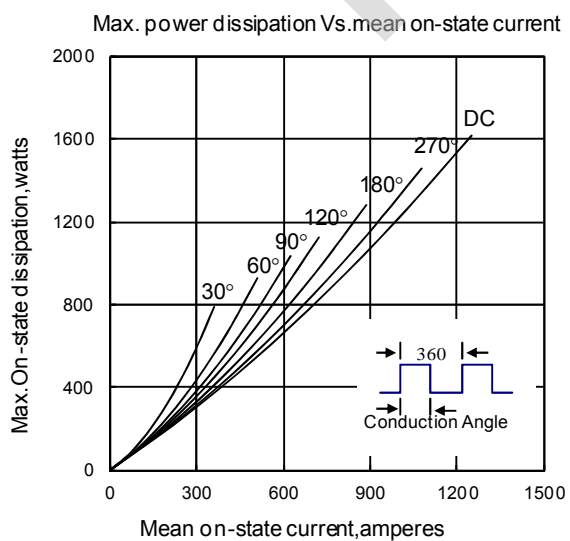


Fig5

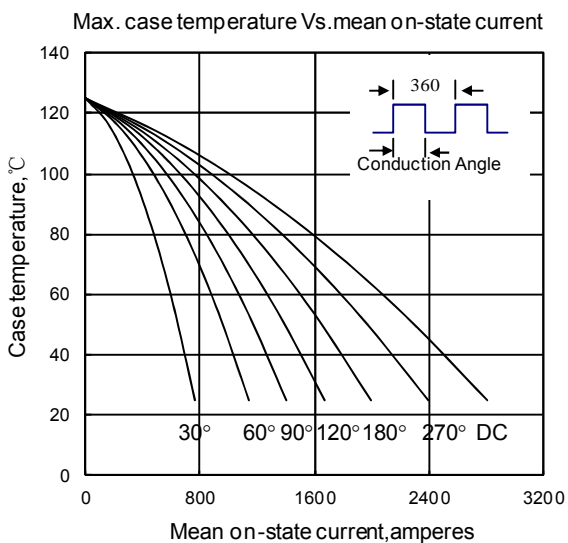


Fig6

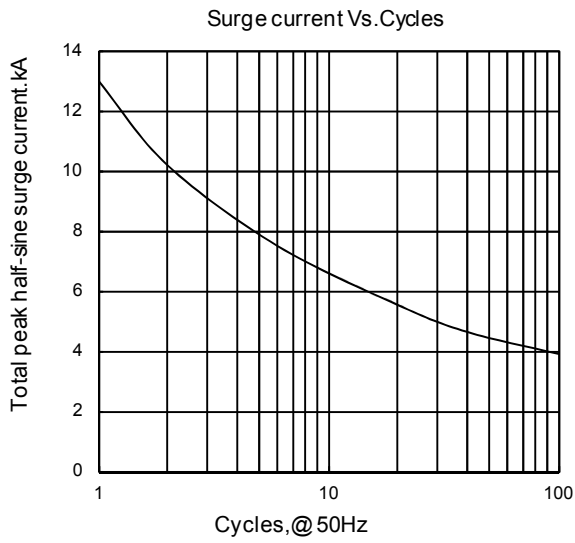


Fig 7

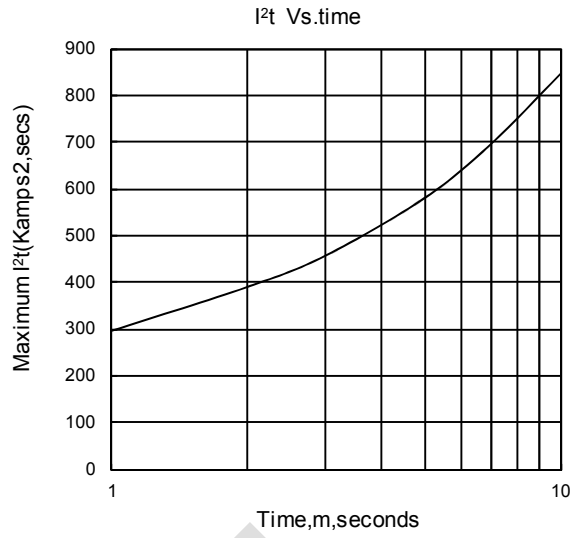


Fig 8

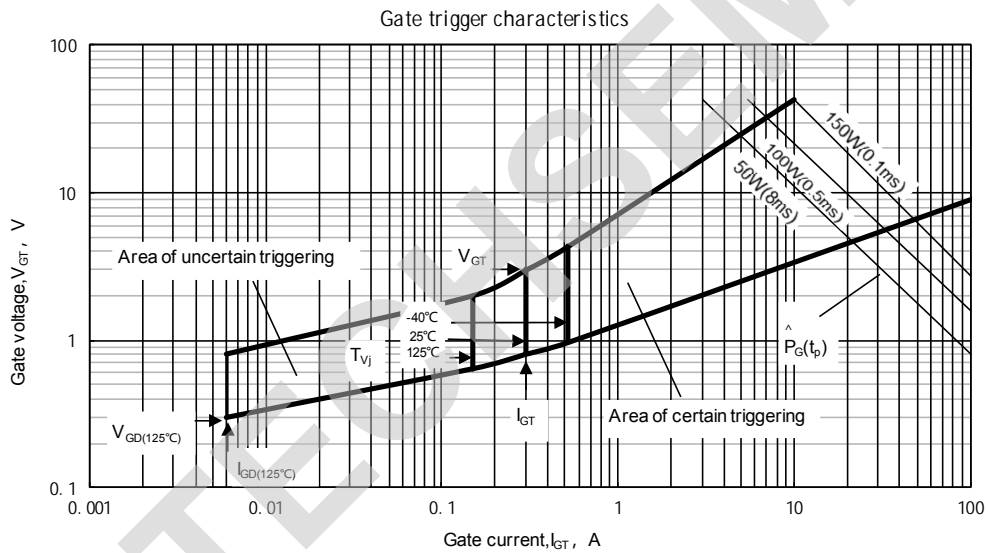
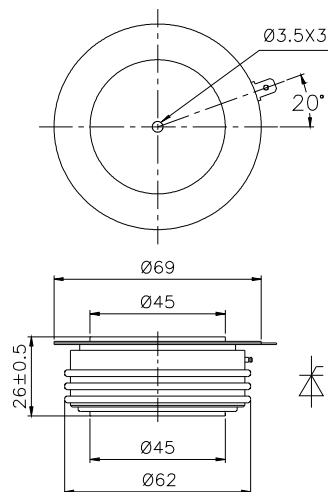


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.