

**Features**

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

Typical Applications

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

Part No. Y35KPE-KT33cT

$I_{T(AV)}$	730A	
V_{DRM}, V_{RRM}	1200V 1400V	
	1600V 1800V	

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T_j (C)	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180 half sine wave 50Hz Double side cooled,	$T_c=70\text{ C}$	125			730	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10\text{ms}$		125	1100		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, $V_R=0.6V_{RRM}$		125			9	kA
I^2t	I^2t for fusing coordination						405	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage			125			0.88	V
r_T	On-state slope resistance						0.65	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1200A$, $F=15.0kN$		25			2.00	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 800A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$ Repetitive		125			150	A/μs
Q_{rr}	Recovery charge	$I_{TM}=1000A$, $t_p=4000\mu s$, $di/dt=-20A/\mu s$, $V_R=100V$		125		1000		μC
I_{GT}	Gate trigger current	$V_A=12V$, $I_A=1A$		25	35		250	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_H	Holding current				20		200	mA
I_L	Latching current						500	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=0.67V_{DRM}$		125			0.3	V
$R_{th(j-c)}$	Thermal resistance Junction to case	sine: double side cooled Clamping force 15kN					0.035	C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.008	
F_m	Mounting force				10		20	kN
T_{vj}	Junction temperature				-40		125	C
T_{stg}	Stored temperature				-40		140	C
W_t	Weight					240		g
Outline	KT33cT							

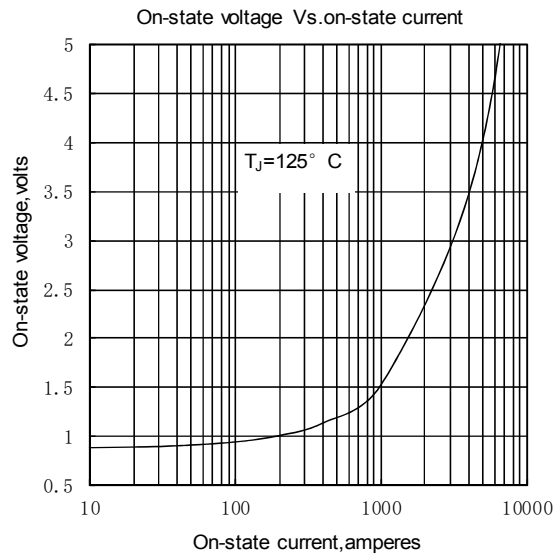


Fig.1

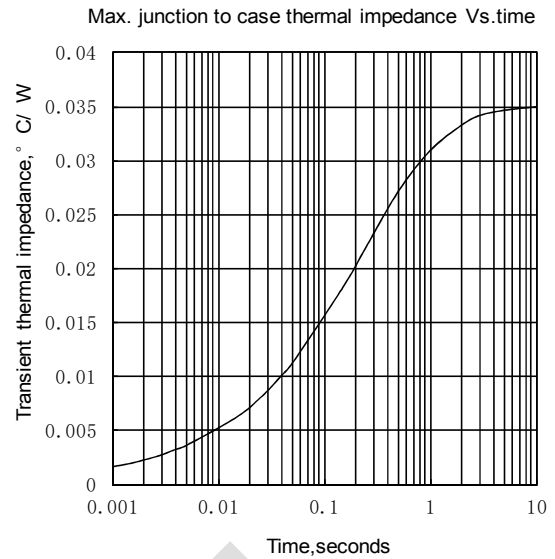


Fig.2

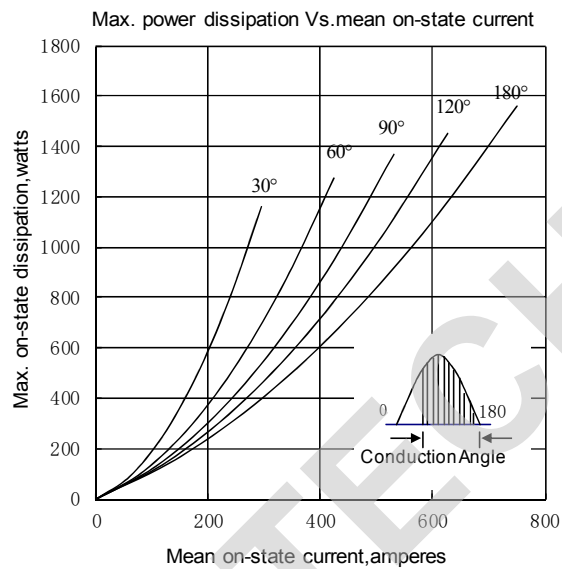


Fig.3

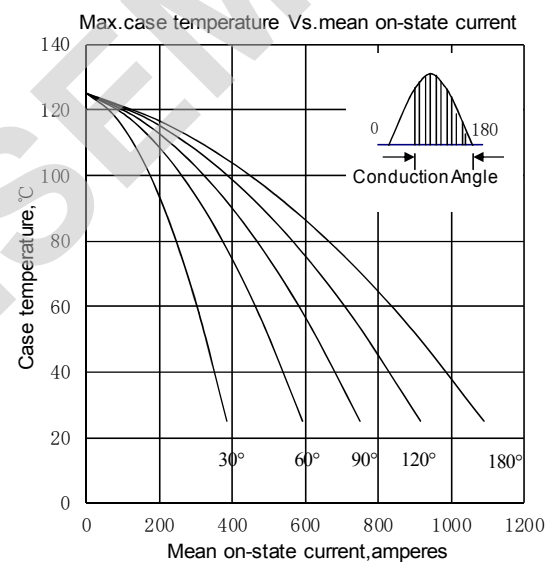


Fig.4

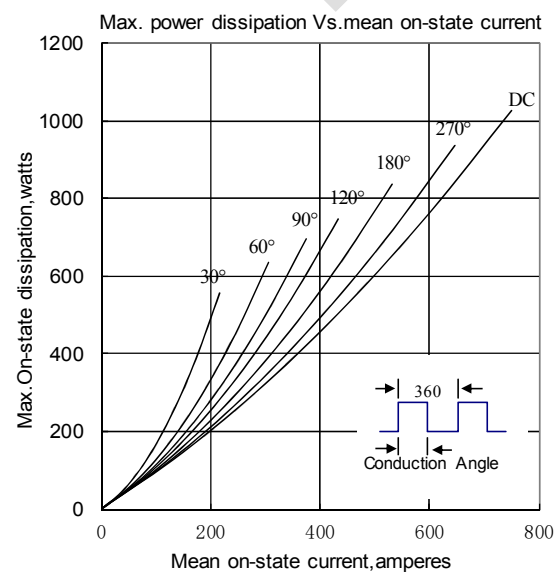


Fig.5

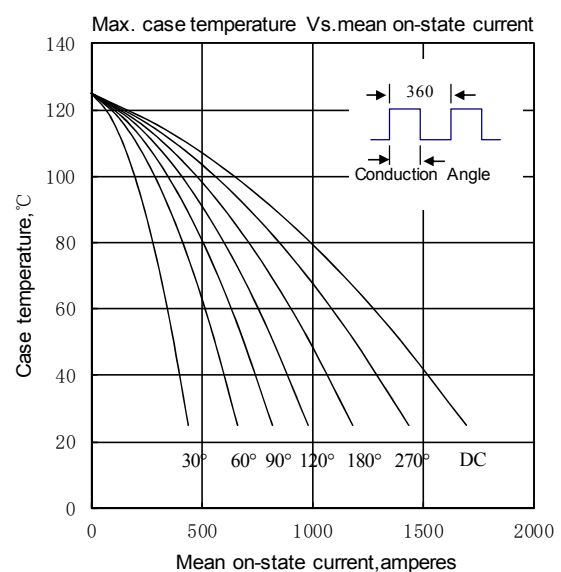


Fig.6

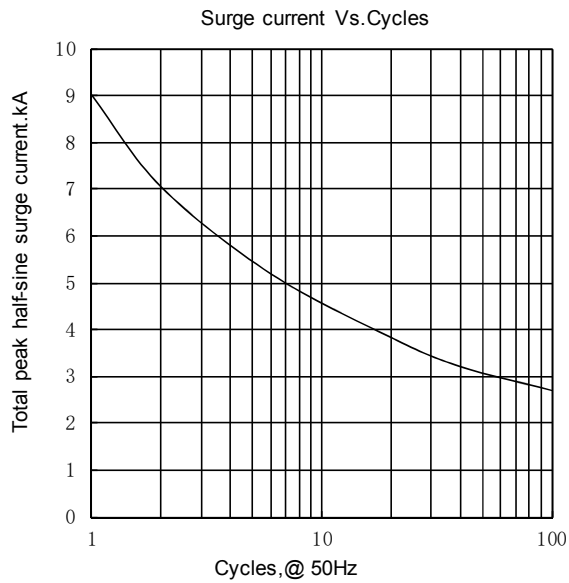


Fig.7

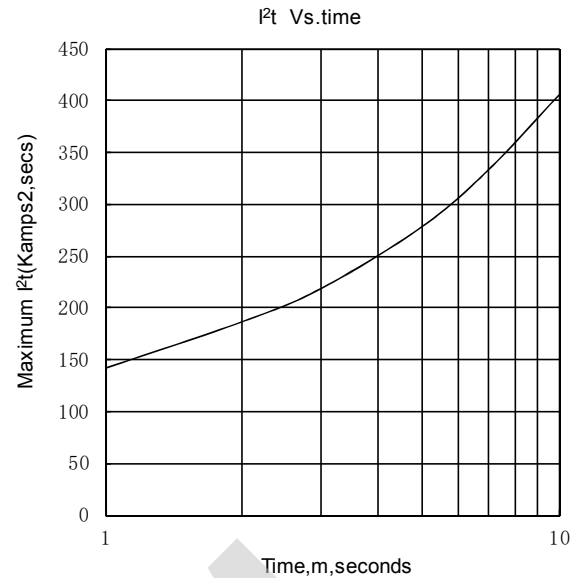


Fig.8

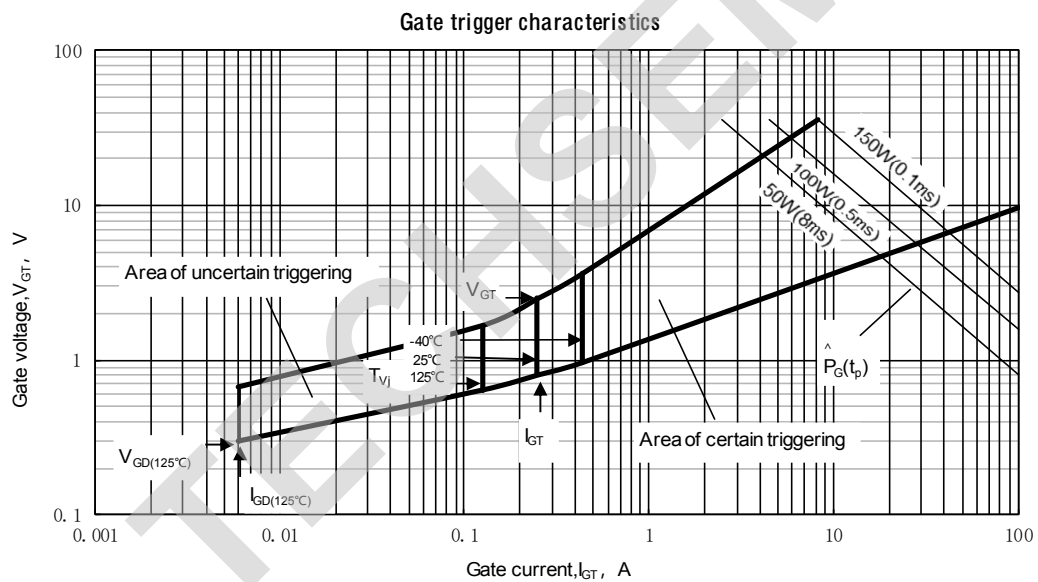
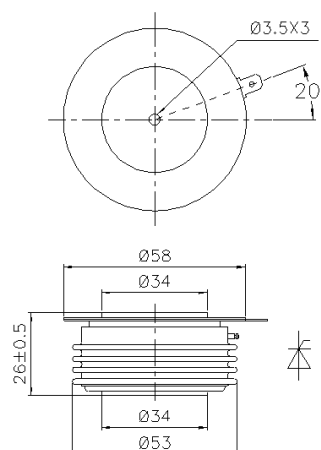


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.