

**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. Y60KPJ-KT54cT**

<b>I<sub>T(AV)</sub></b>	<b>1100A</b>
<b>V<sub>DRM</sub>, V<sub>RRM</sub></b>	<b>3200V 3500V</b>
	<b>4000V 4200V</b>
<b>I<sub>TSM</sub></b>	<b>14.7 kA</b>

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT	
				Min	Type	Max		
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Double side cooled	T <sub>C</sub> =70°C	125			1100	A
			T <sub>C</sub> =55°C	125			1300	A
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> t <sub>p</sub> =10ms at V <sub>RRM</sub> t <sub>p</sub> =10ms	125			150	mA	
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			14.7	kA	
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				1080	10 <sup>3</sup> A <sup>2</sup> s	
V <sub>TO</sub>	Threshold voltage		125			1.15	V	
r <sub>T</sub>	On-state slope resistance					0.57	mΩ	
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =3000A, F=28kN	25			2.90	V	
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>	125			1000	V/μs	
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> = 67%V <sub>DRM</sub> , Gate pulse t <sub>r</sub> ≤0.5μs I <sub>GM</sub> =1.5A	125			150	A/μs	
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =1000A, t <sub>p</sub> =4000μs, di/dt=-20A/μs, V <sub>R</sub> =100V	125		3500		μC	
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	40		300	mA	
V <sub>GT</sub>	Gate trigger voltage			0.8		3.0	V	
I <sub>H</sub>	Holding current			20		300	mA	
I <sub>L</sub>	Latching current					1000	mA	
V <sub>GD</sub>	Non-trigger gate voltage			V <sub>DM</sub> =67%V <sub>DRM</sub> .	125			0.3
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine, double side cooled Clamping force 28kN				0.018	°C/W	
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink					0.005		
F <sub>m</sub>	Mounting force			21		30	kN	
T <sub>vj</sub>	Junction temperature			-40		125	°C	
T <sub>stg</sub>	Stored temperature			-40		140	°C	
W <sub>t</sub>	Weight				640		g	
Outline	KT54cT							

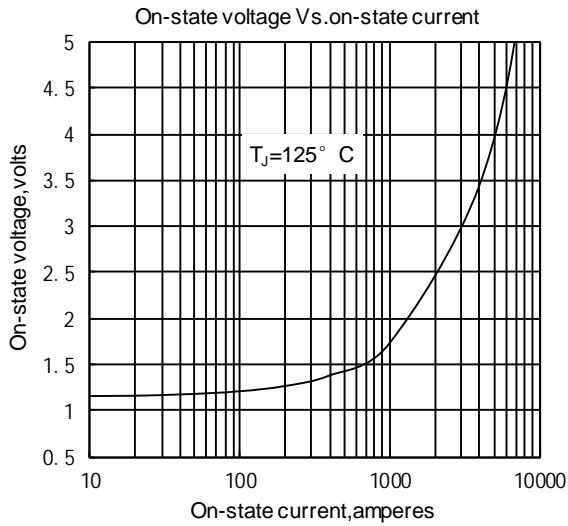


Fig.1

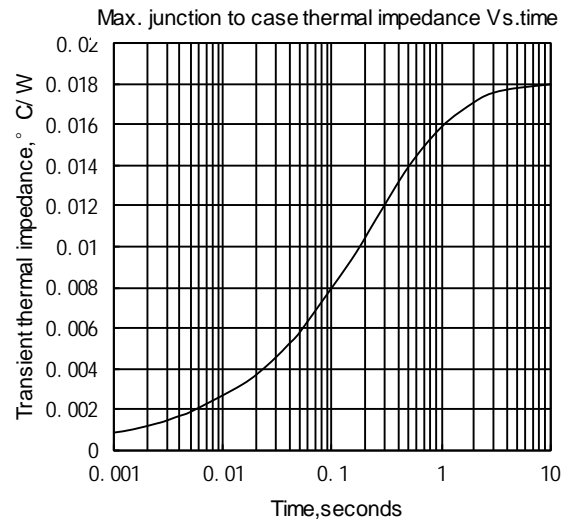


Fig.2

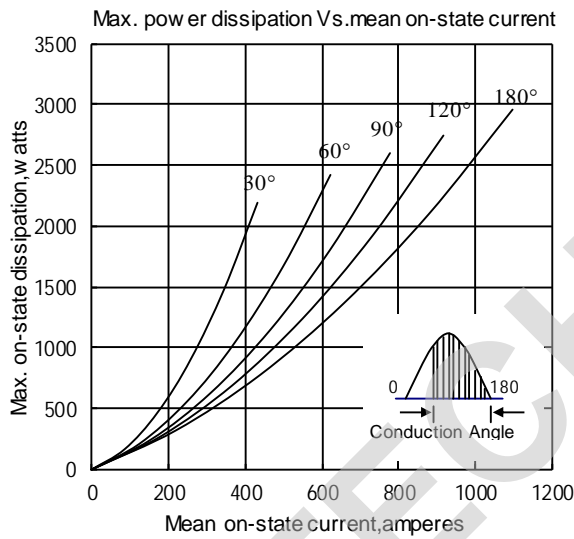


Fig.3

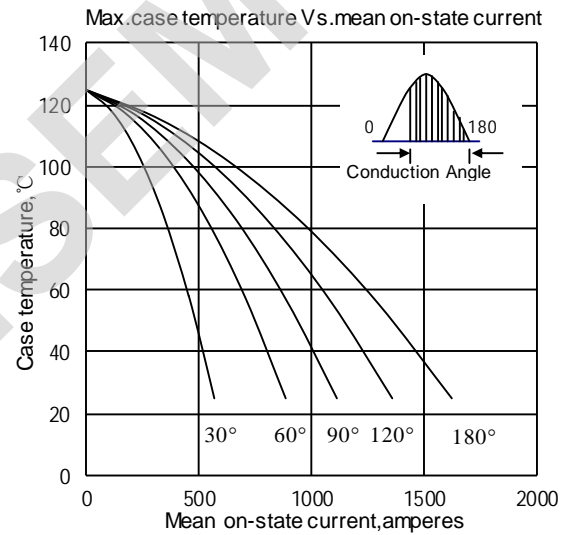


Fig.4

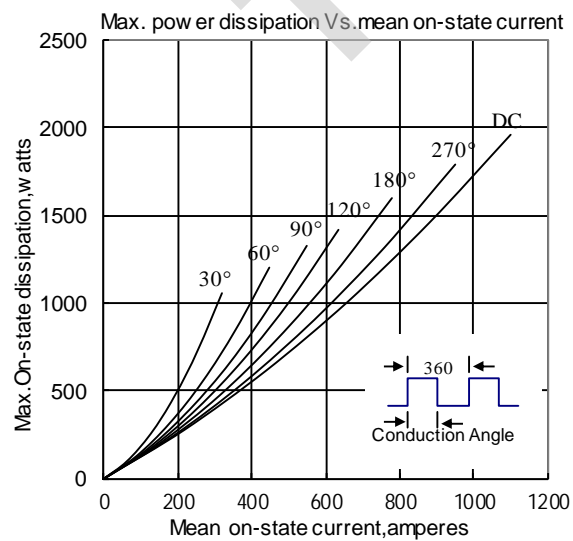


Fig.5

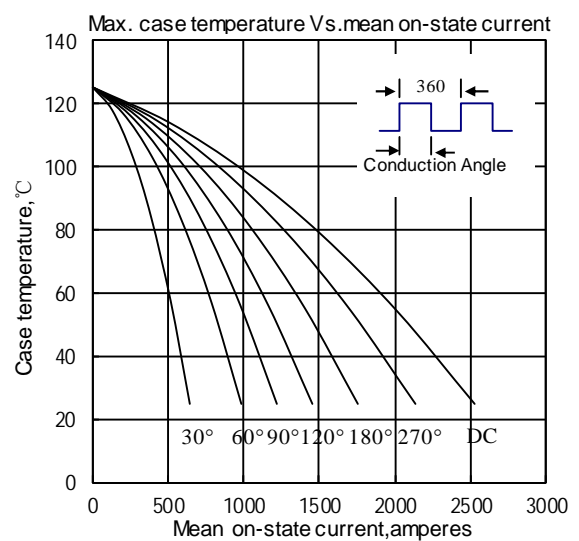


Fig.6

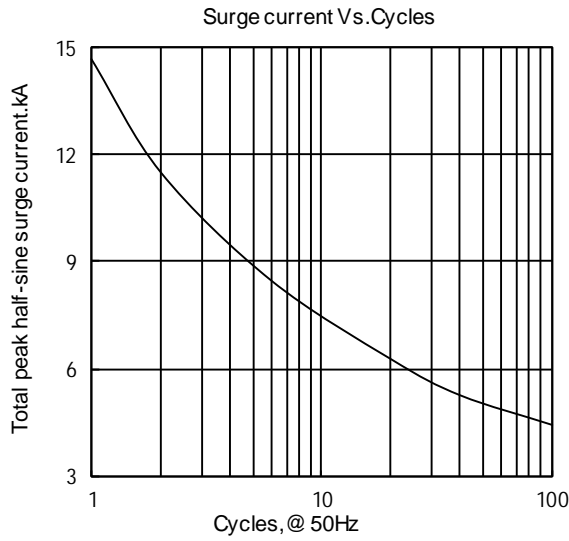


Fig.7

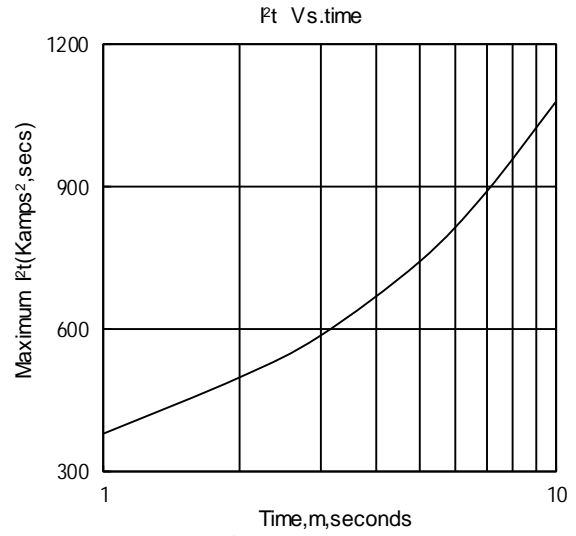


Fig.8

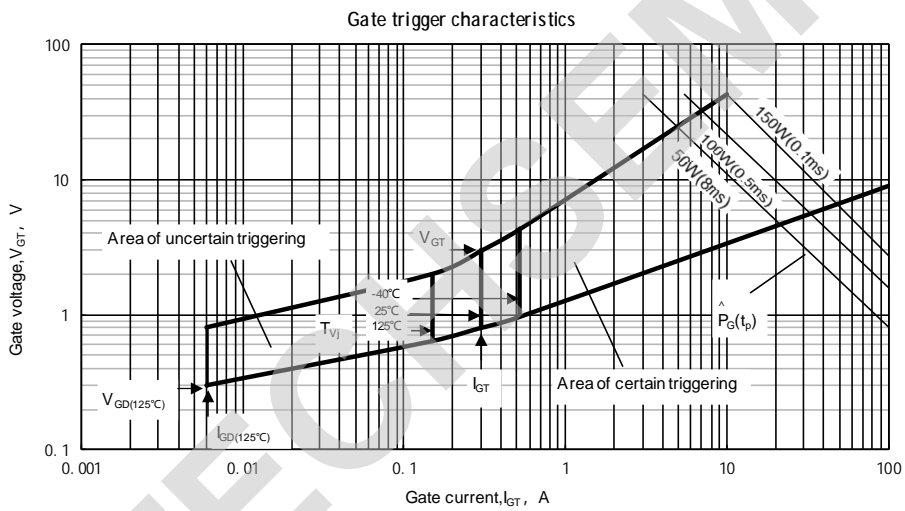
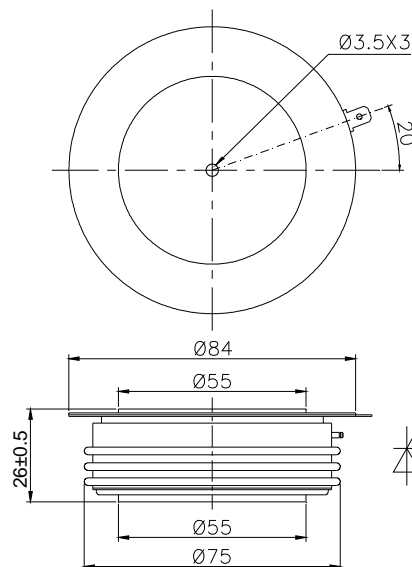


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.