

**Features**

- n Small recovered charge
- n Soft recovery
- n Up to 5000V reverse voltage
- n Capsule type metal-ceramic packages for double sided cooling

**Typical Applications**

- n Inverse diodes for power transistors, GTO thyristors
- n AC motor control
- n Snubber diodes and free-wheeling diodes

**Part No. Y89ZKG-ZT84cT**

<b>I<sub>F(AV)</sub></b>	<b>2600A</b>	
<b>V<sub>RRM</sub></b>	<b>4000V</b>	<b>4200V</b>
	<b>4500V</b>	<b>5000V</b>

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Double side cooled, T <sub>C</sub> =70°C	125			2600	A
V <sub>RRM</sub>	Repetitive peak reverse voltage	tp=10ms	125	4000		5000	V
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	125			120	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave	125			40	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				8000	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>FO</sub>	Threshold voltage		125			1.10	V
r <sub>F</sub>	Forward slope resistance					0.47	mΩ
V <sub>FM</sub>	Peak on-state voltage	I <sub>FM</sub> =5000A, F=70kN	125			2.60	V
I <sub>rm</sub>	Reverse recovery current				450		A
t <sub>rr</sub>	Reverse recovery time	I <sub>FM</sub> =2000A, tp=2000μs, di/dt=-60A/μs, V <sub>R</sub> =50V	125		15		μs
Q <sub>rr</sub>	Recovery charge				4300		μC
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 70kN				0.005	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink					0.0015	
F <sub>m</sub>	Mounting force			63		84	kN
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				1390		g
<b>Outline</b>	ZT84cT						

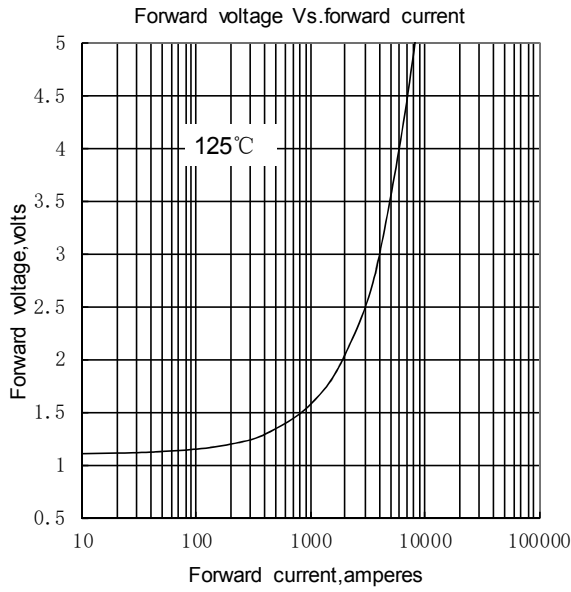


Fig.1

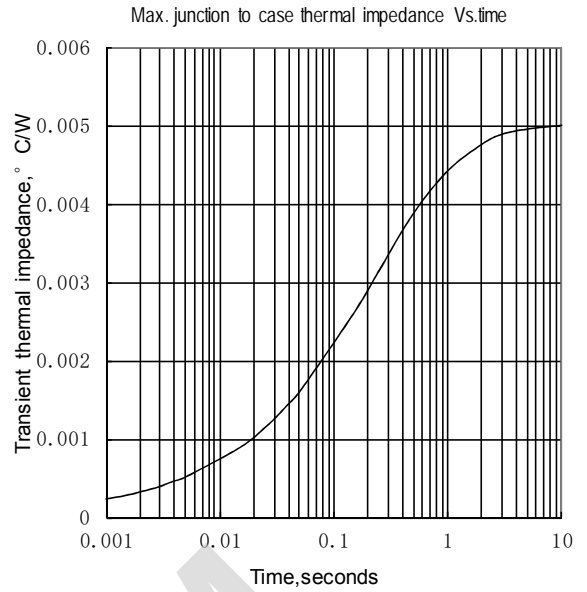


Fig.2

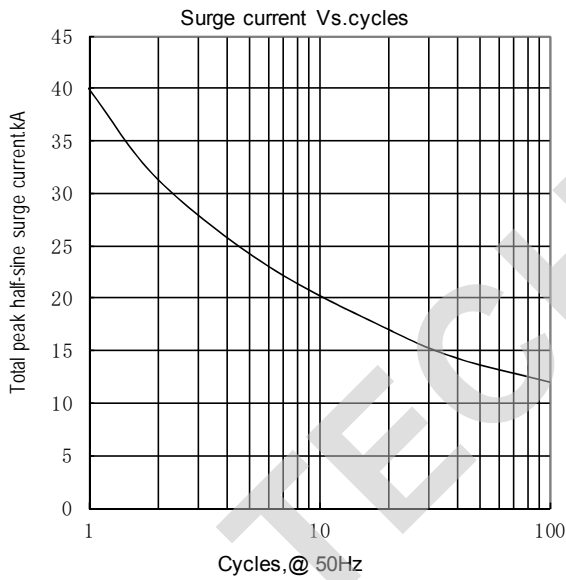


Fig.3

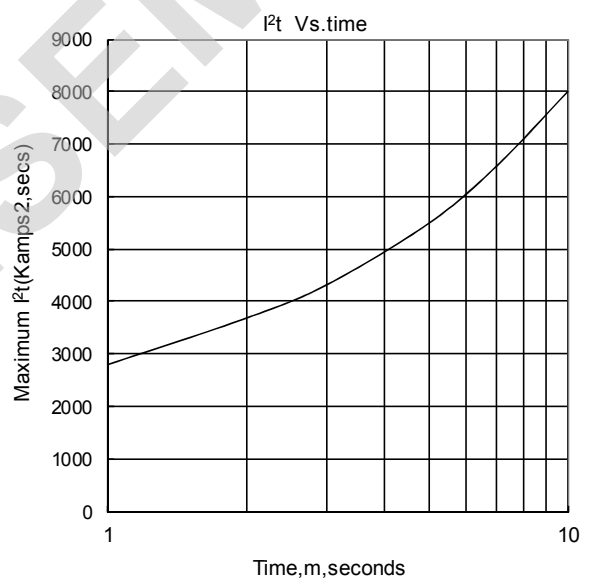


Fig.4

Outline: ZT84cT

