

**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

I_{F(AV)}	2600A	
V_{RRM}	4000V	4200V
	4500V	5000V

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

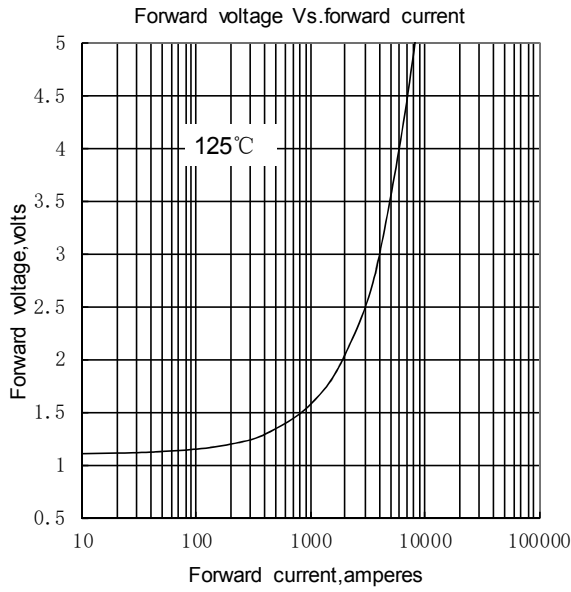


Fig.1

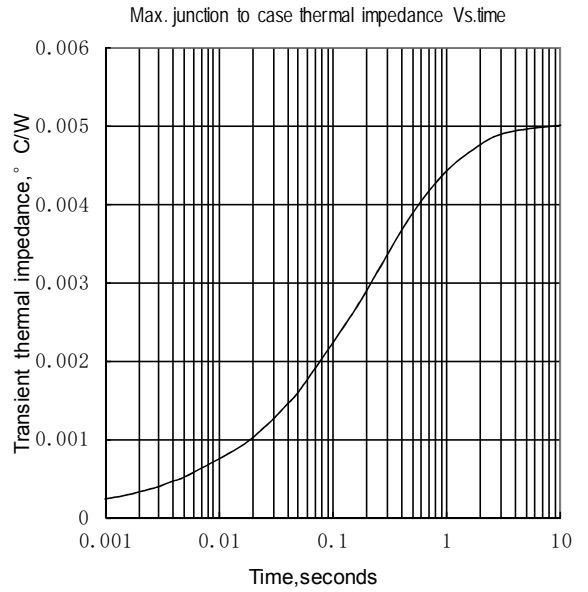


Fig.2

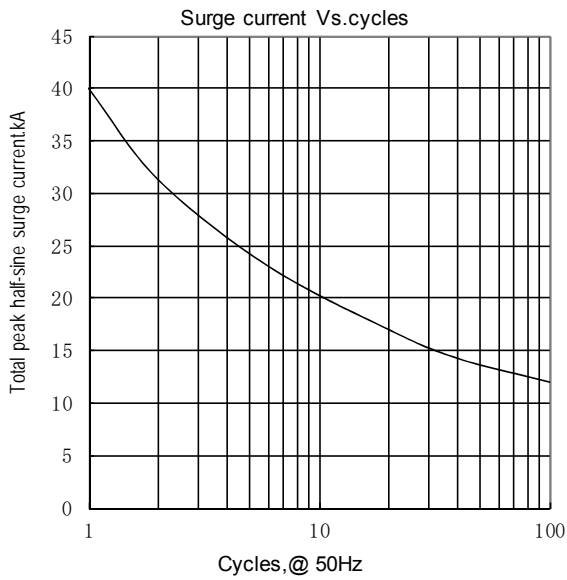


Fig.3

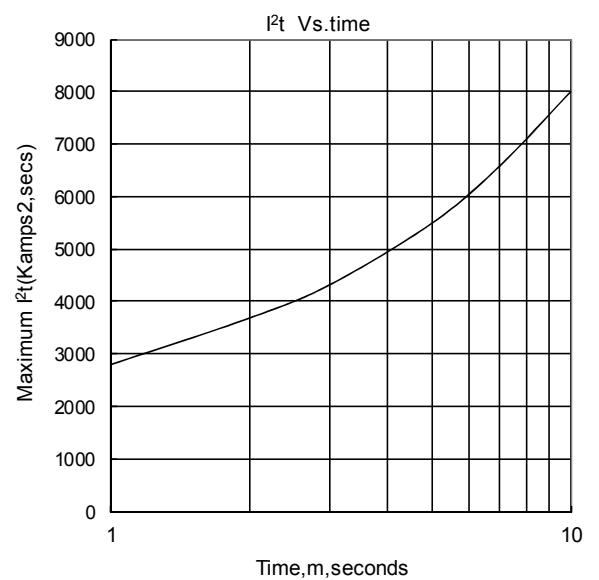


Fig.4

Outline: ZT84cT

