



**Features**

- Low forward voltage drop
- Soft recovery
- Hermetic metal cases with ceramic insulators

**Typical Applications**

- Inverters and choppers
- Motor control
- Snubber and free-wheeling diodes

**Part No. Y50ZYD-ZT50cT**

<b>I<sub>F(AV)</sub></b>	<b>1500A</b>
<b>V<sub>RRM</sub></b>	<b>1800V 2000V 2200V 2500V</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>sink</sub> =55°C	125			1500	A
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>		125			85	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave		125			19.6	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>						1920.8
V <sub>F0</sub>	Threshold voltage			125			1.16	V
r <sub>F</sub>	Forward slope resistance							0.29
V <sub>FM</sub>	Peak forward voltage	@I <sub>FM</sub> =1500A,	F=24kN	25			1.76	V
		@I <sub>FM</sub> =3000A,		125			2.03	
V <sub>FRM</sub>	Maximum forward recovery voltage	di/dt=1000A/μs		125			45	V
				25			28	V
I <sub>rm</sub>	Reverse recovery current			125		144		A
t <sub>rr</sub>	Reverse recovery time	I <sub>FM</sub> =1000A, t <sub>p</sub> =4000μs, -di/dt=60A/μs, V <sub>R</sub> =50V				4.5		μs
Q <sub>rr</sub>	Recovery charge					650		μC
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine, double side cooled					0.021	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink	Clamping force 24kN					0.005	
F <sub>m</sub>	Mounting force				19		26	kN
T <sub>jop</sub>	Operating temperature range				-40		125	°C
T <sub>stg</sub>	Stored temperature				-40		150	°C
W <sub>t</sub>	Weight					440		g
Outline	ZT50cT							

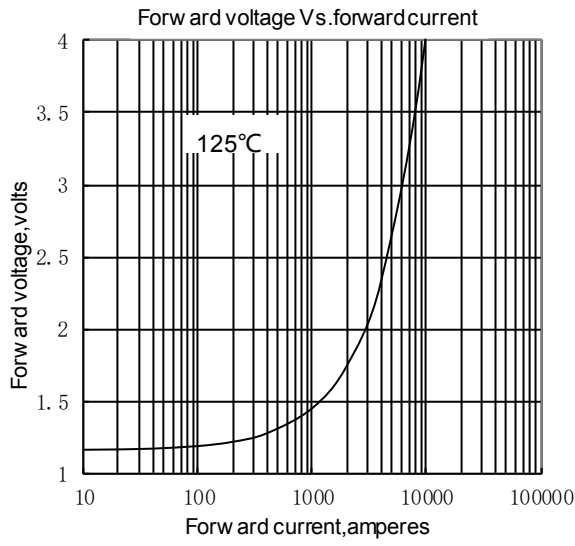


Fig.1

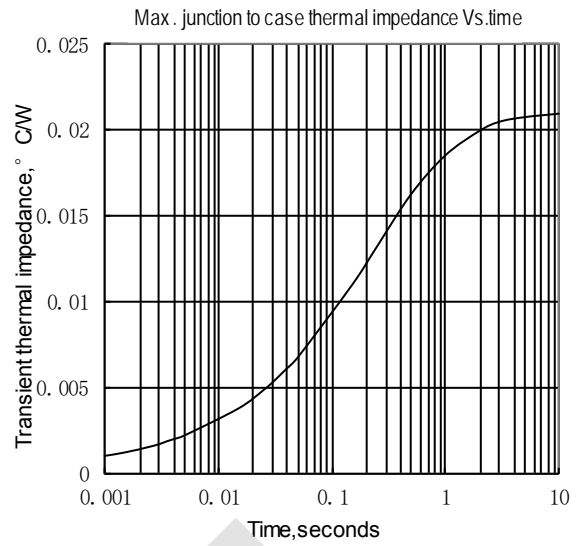


Fig.2

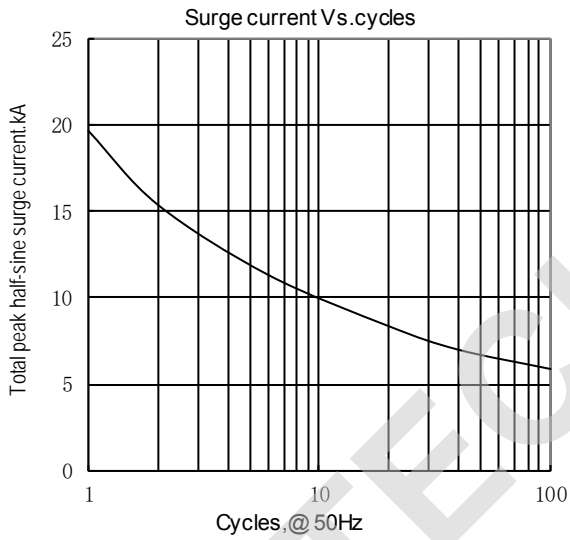


Fig.3

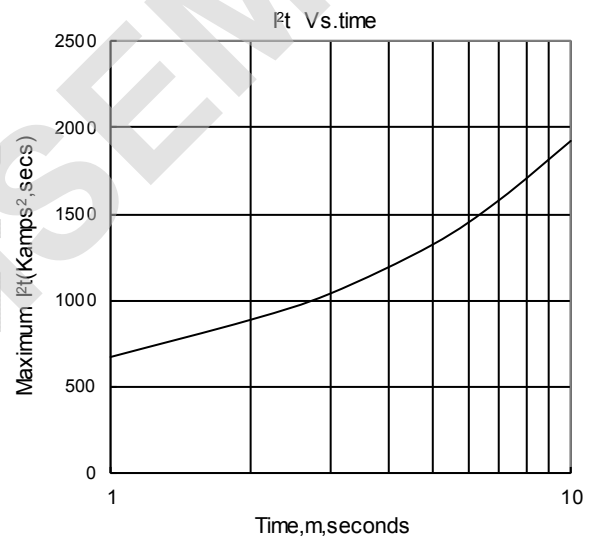


Fig.4

Outline

