



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

I_{F(AV)}	1500A
V_{RRM}	1800V 2000V 2200V 2500V

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 _{sink} =55°C	125			1500	A
I _{RRM}	Repetitive peak current	at V _{RRM}		125			85	mA
I _{FSM}	Surge forward current	10ms half sine wave V _R =0.6V _{RRM}		125			19.6	kA
I ² t	I ² t for fusing coordination						1920.8	A ² s*10 ³
V _{FO}	Threshold voltage			125			1.16	V
r _F	Forward slope resistance						0.29	mΩ
V _{FM}	Peak forward voltage	@I _{FM} =1500A,	F=24kN	25			1.76	V
		@I _{FM} =3000A,		125			2.03	
V _{FRM}	Maximum forward recovery voltage	di/dt=1000A/μs		125			45	V
				25			28	V
I _{rm}	Reverse recovery current			125		144		A
t _{rr}	Reverse recovery time	I _{FM} =1000A, t _p =4000μs, -di/dt=60A/μs, V _R =50V				4.5		μs
Q _{rr}	Recovery charge					650		μC
R _{th(j-c)}	Thermal resistance Junction to case	At 180° sine, double side cooled Clamping force 24kN					0.021	°C /W
R _{th(c-h)}	Thermal resistance case to heat sink						0.005	
F _m	Mounting force				19		26	kN
T _{jop}	Operating temperature range				-40		125	°C
T _{stg}	Stored temperature				-40		150	°C
W _t	Weight					440		g
Outline	ZT50cT							

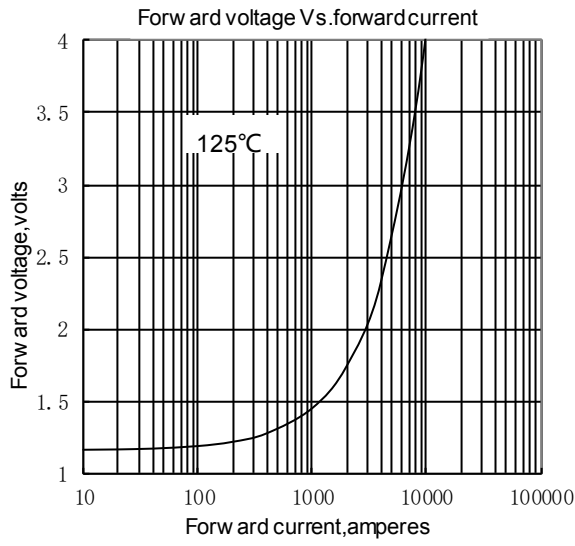


Fig.1

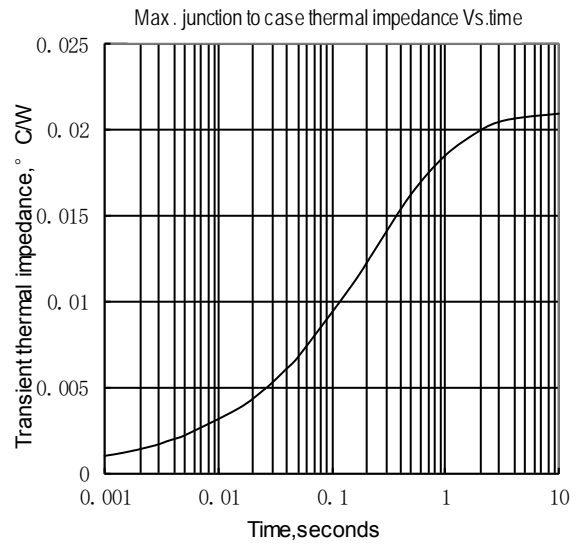


Fig.2

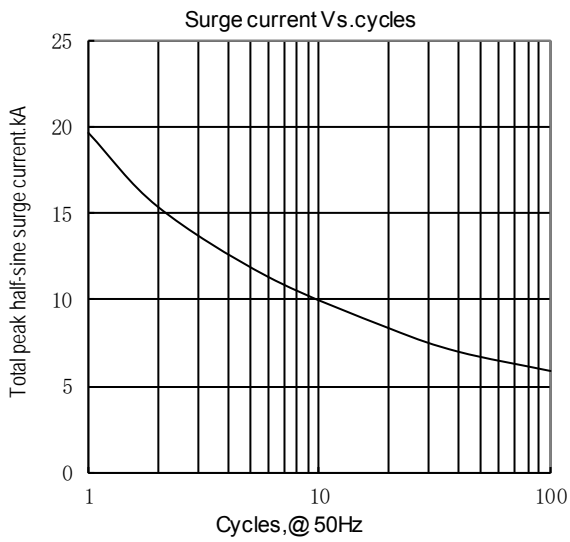


Fig.3

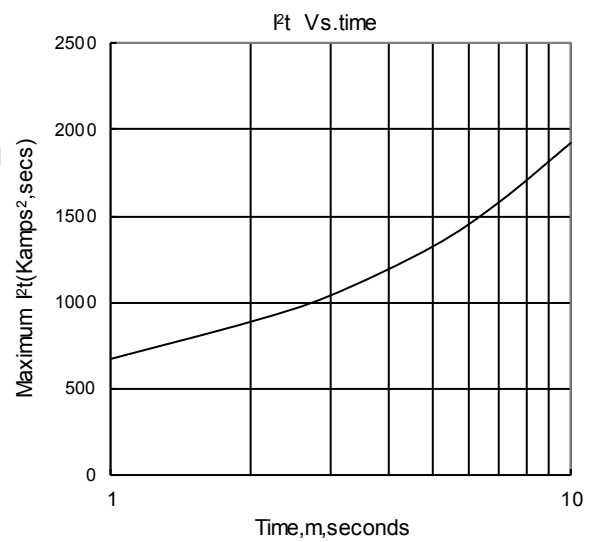


Fig.4

Outline

