TECHSEM

Y40ZPB
RECTIFIER DIODE

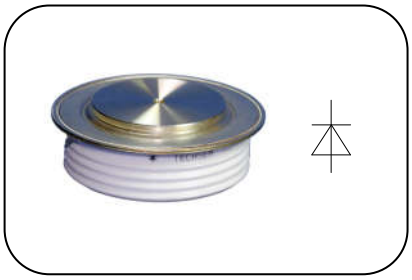
Features

- Low forward voltage drop
- High reverse voltage
- Hermetic metal cases with ceramic insulators

Typical Applications

- All purpose high power rectifier diodes
- High power resistance welding equipment
- Non-controllable and half-controllable rectifiers
- Controlled rectifiers

$I_{F(AV)}$	**2160A**
V_{RRM}	**200~1000 V**
I_{FSM}	**19 kA**
I^2t	**1805 10^3A^2S**



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=85°C	190			2160	A
V_{RRM}	Repetitive peak reverse voltage	tp=10ms		190	200		1000	V
I_{RRM}	Repetitive peak current	at V_{RRM}		190			50	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}		190			19	kA
I^2t	I^2t for fusing coordination						1805	A^2s*10^3
V_{FO}	Threshold voltage			190			0.86	V
r_F	Forward slope resistance						0.165	mΩ
V_{FM}	Peak forward voltage	I_{FM}=3000A, F=18kN		25			2.0	V
Q_{rr}	Recovery charge	I_{FM}=2000A,tp=2000μs, di/dt=-20A/μs, V_R=50V		190		1900		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180^0 sine, double side cooled Clamping force 18.0kN					0.028	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.0075	
F_m	Mounting force				15		20	kN
T_{stg}	Stored temperature				-40		190	°C
W_t	Weight					320		g
Outline	ZT39cT40							

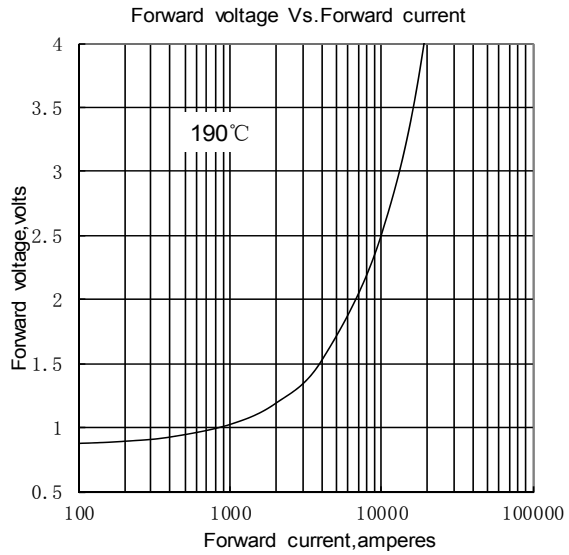


Fig.1

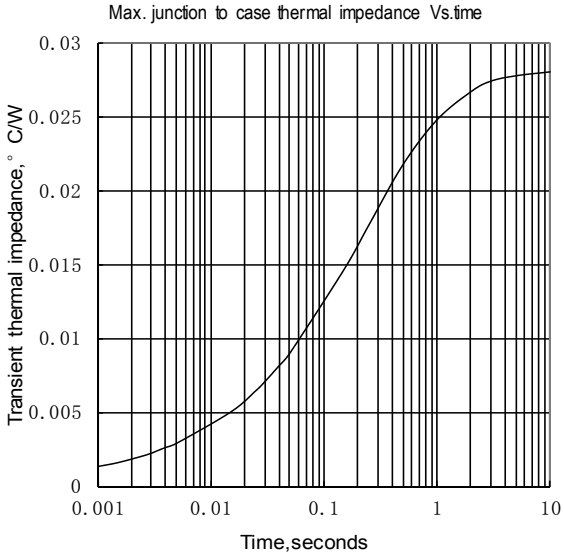


Fig.2

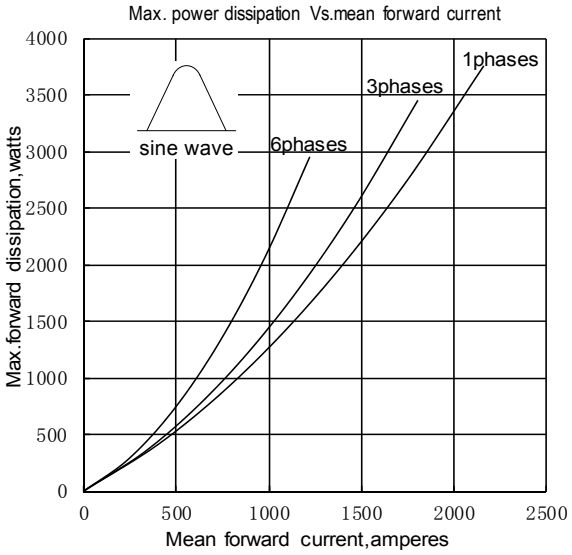


Fig.3

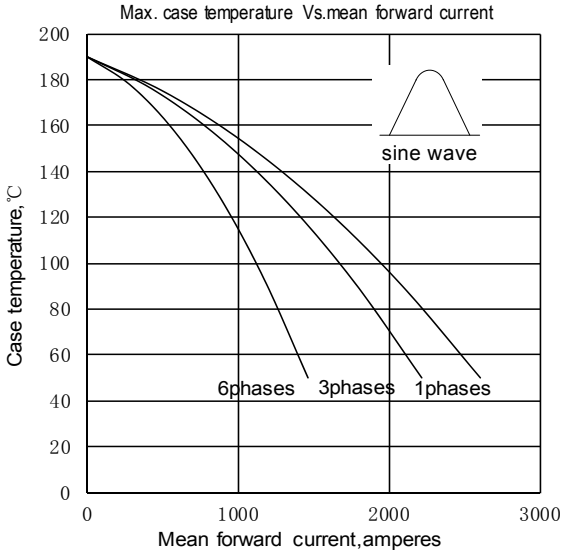


Fig.4

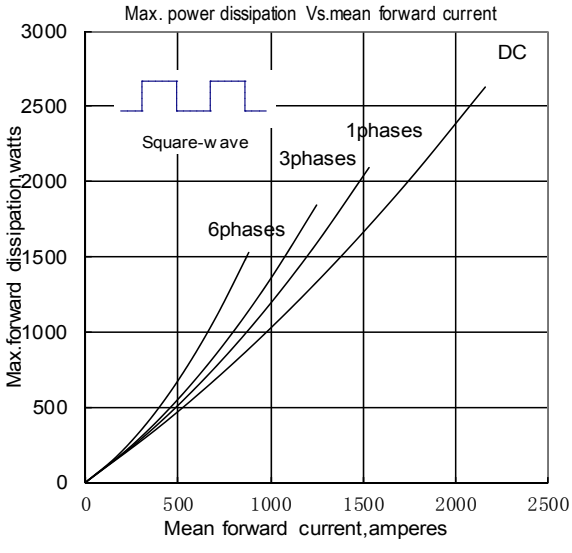


Fig.5

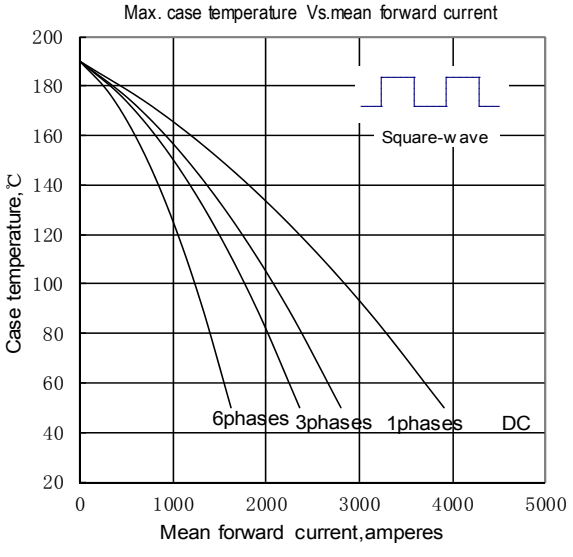


Fig.6

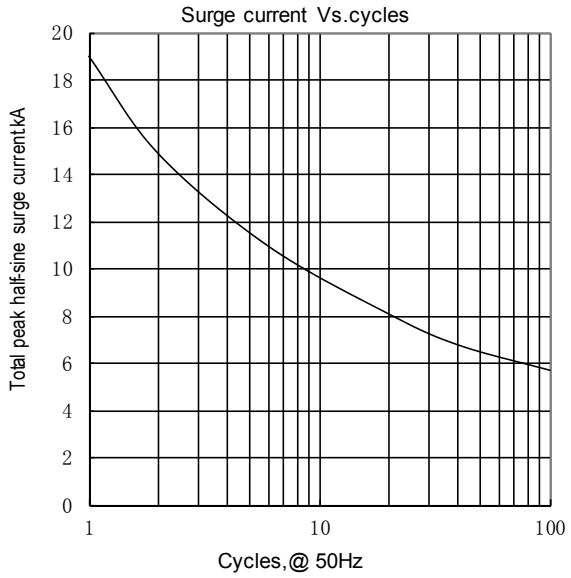


Fig.7

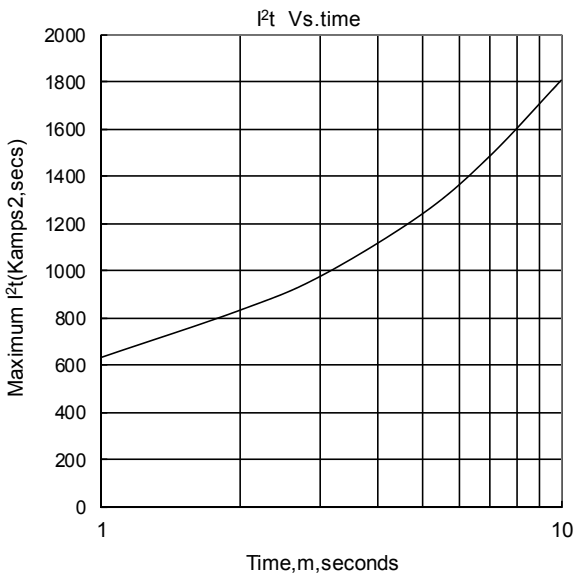


Fig.8

Outline: