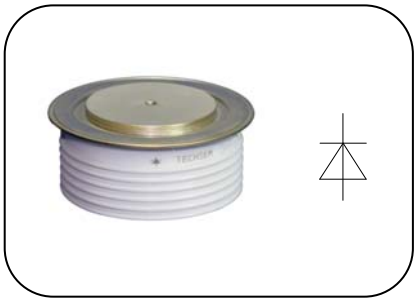
TECHSEM

T38ZPR
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

$I_{F(AV)}$	500 A
V_{RRM}	5600~6500 V
I_{FSM}	9.5 kA
I^2t	451 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=55°C	150			750	A
			T_C=100°C				500	
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms		150	5600		6500	V
I_{RRM}	Repetitive peak current	V_{RM}= V_{RRM}		150			50	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}		150			9.5	kA
I^2t	I^2T for fusing coordination						451	A^2s*10^3
V_{FO}	Threshold voltage			150			0.89	V
r_F	Forward slop resistance						1.05	mΩ
V_{FM}	Peak on-state voltage	I_{FM}=1000A, F=15kN		150			2.2	V
Q_{rr}	Recovery charge	I_{FM}=1000A,tp=2000μs, di/dt=-5A/μs, V_R=50V		150		2500		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180^0 sine, double side cooled Clamping force 15.0kN					0.045	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.008	
F_m	Mounting force				10	15	20	kN
T_{stg}	Stored temperature				-40		160	°C
W_t	Weight					340		g
Outline	ZT33dT							

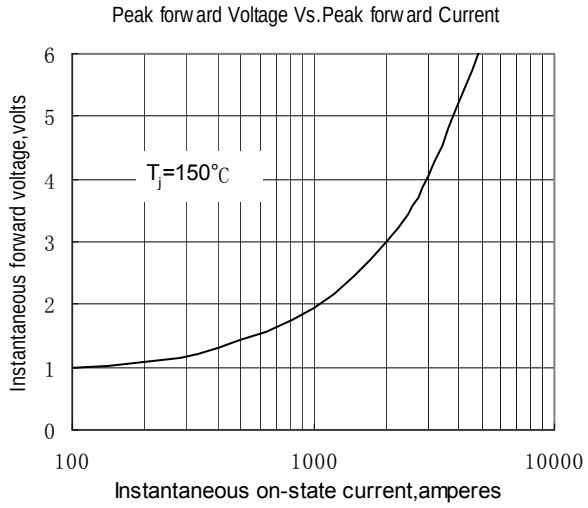


Fig.1

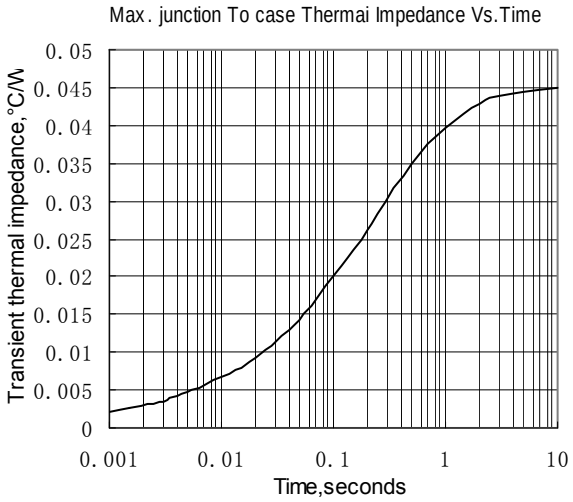


Fig.2

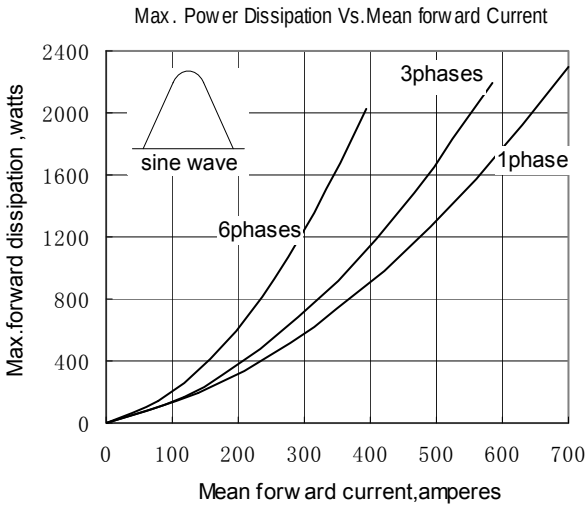


Fig.3

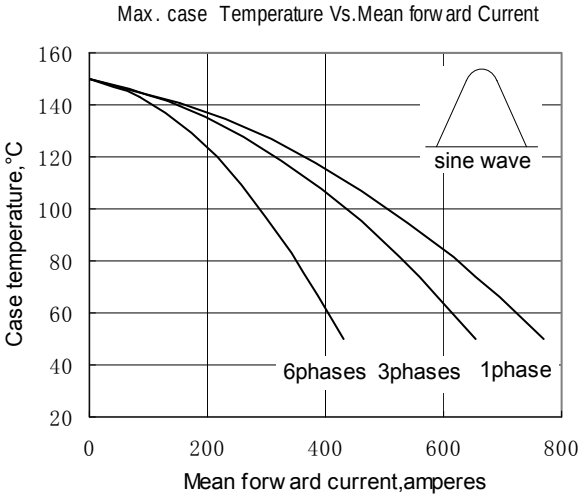


Fig.4

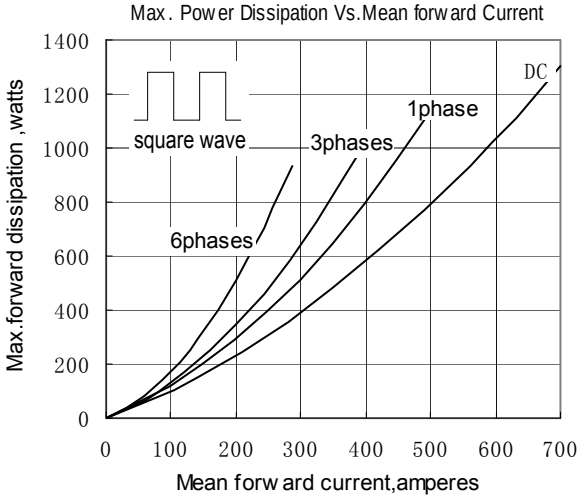


Fig.5

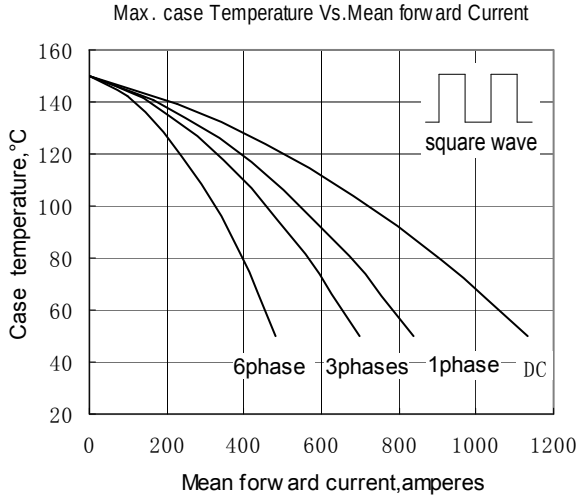


Fig.6

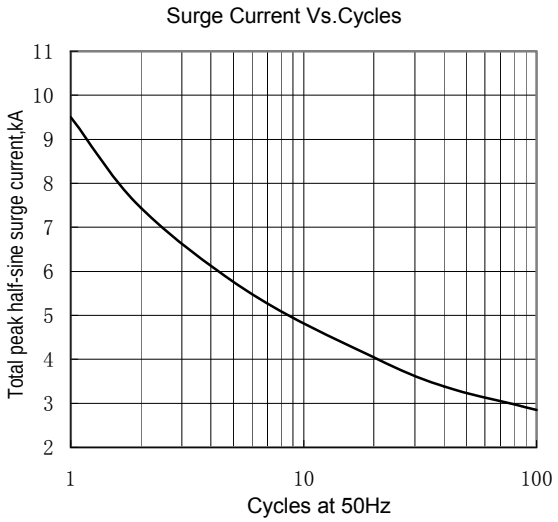


Fig.7

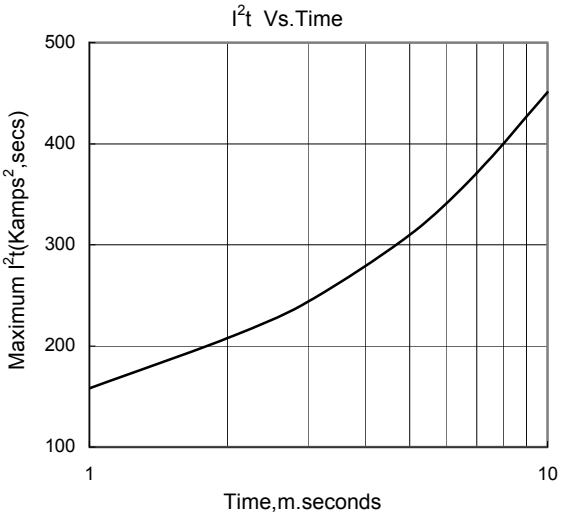


Fig.8

Outline: