

**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

**Part No. T38ZPR-ZT33c(d)T**

<b>I<sub>F(AV)</sub></b>	<b>500A</b>
<b>V<sub>RRM</sub></b>	<b>5600V 6000V</b>
	<b>6500V</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>C</sub> =100°C 150			500	A
V <sub>RRM</sub>	Repetitive peak reverse voltage	tp=10ms	150	5600		6500	V
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			50	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave V <sub>R</sub> =0.6V <sub>RRM</sub>	150			9.5	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					451	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>FO</sub>	Threshold voltage		150			0.89	V
r <sub>F</sub>	Forward slope resistance					1.05	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =1000A, F=20kN	25			2.20	V
Q <sub>rr</sub>	Recovery charge	I <sub>FM</sub> =1000A, tp=4000μs, di/dt=-5A/μs, V <sub>R</sub> =100V	150		2500		μC
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 20.0kN				0.045	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink					0.008	
F <sub>m</sub>	Mounting force			10	15	20	kN
T <sub>vj</sub>	Junction temperature			-40		150	°C
T <sub>stg</sub>	Stored temperature			-40		160	°C
W <sub>t</sub>	Weight				340		g
Outline		ZT33cT / ZT33dT					

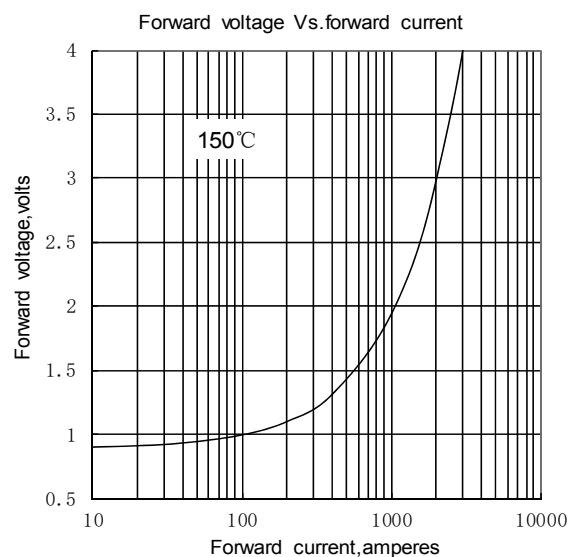


Fig.1

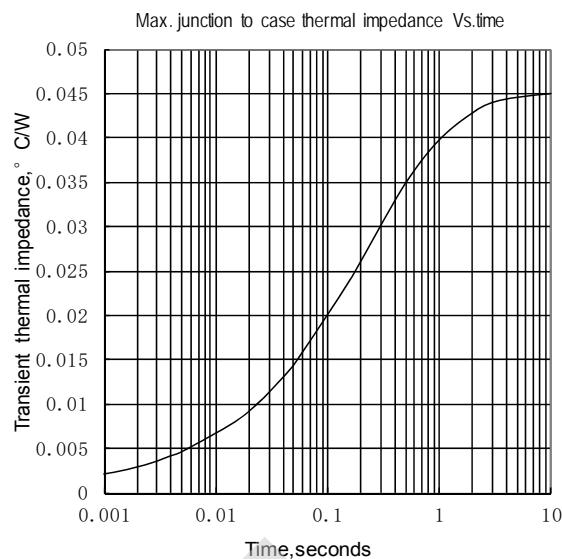


Fig.2

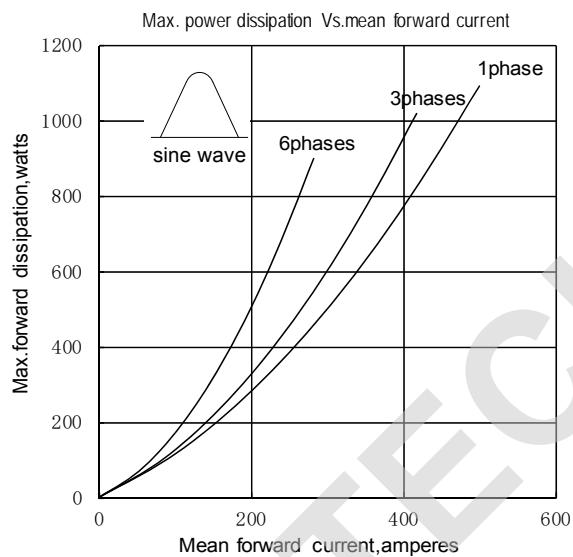


Fig.3

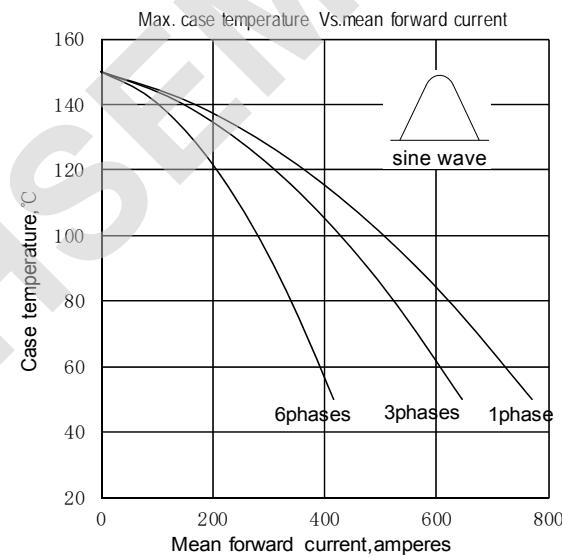


Fig.4

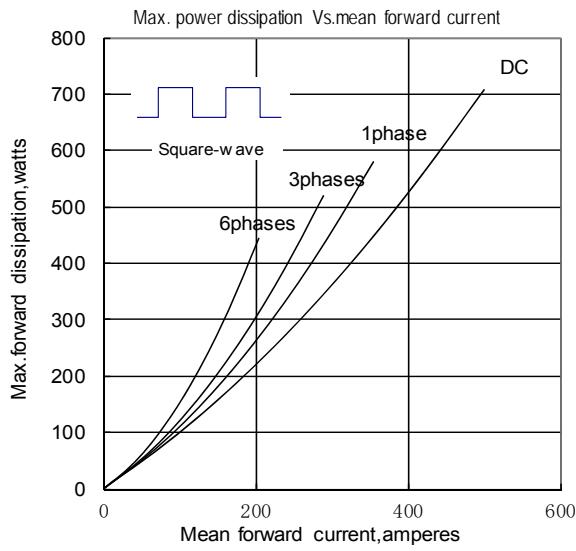


Fig.5

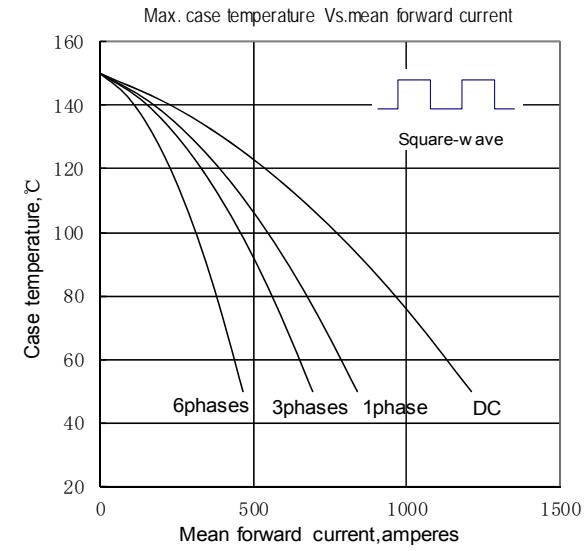


Fig.6

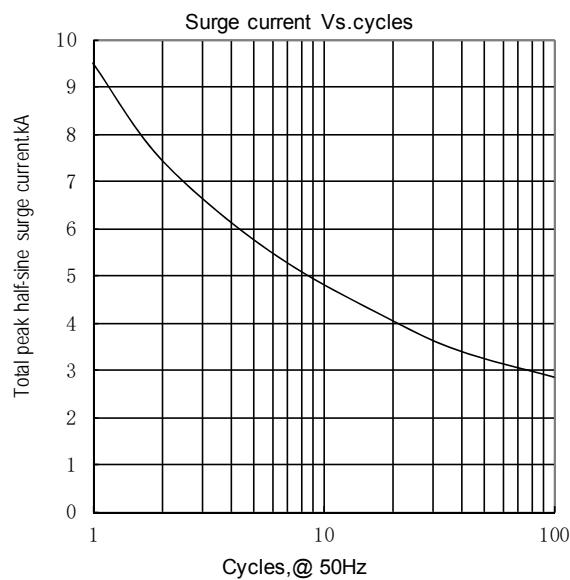


Fig.7

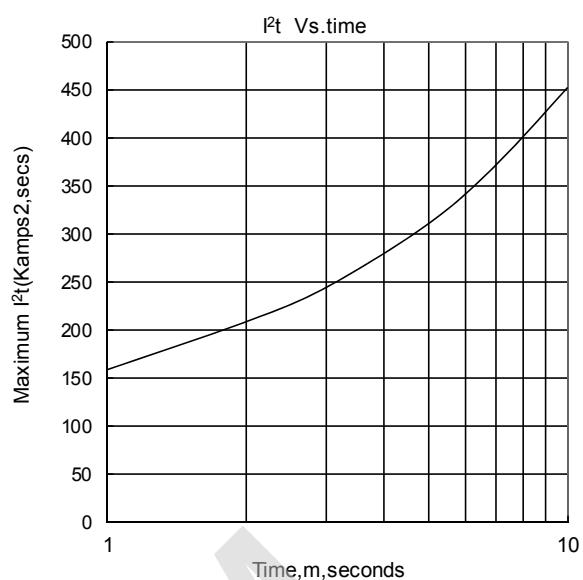
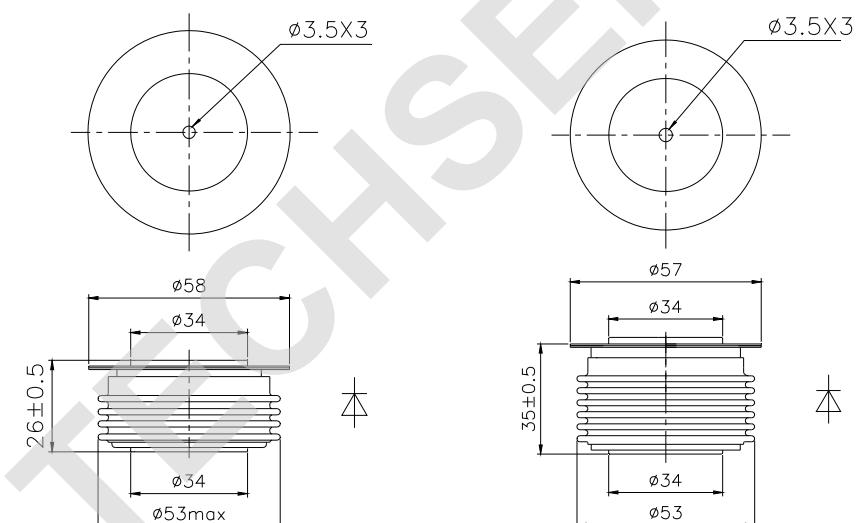


Fig.8

**Outline:**

TECHSEM reserves the right to change specifications without notice.