SiPower

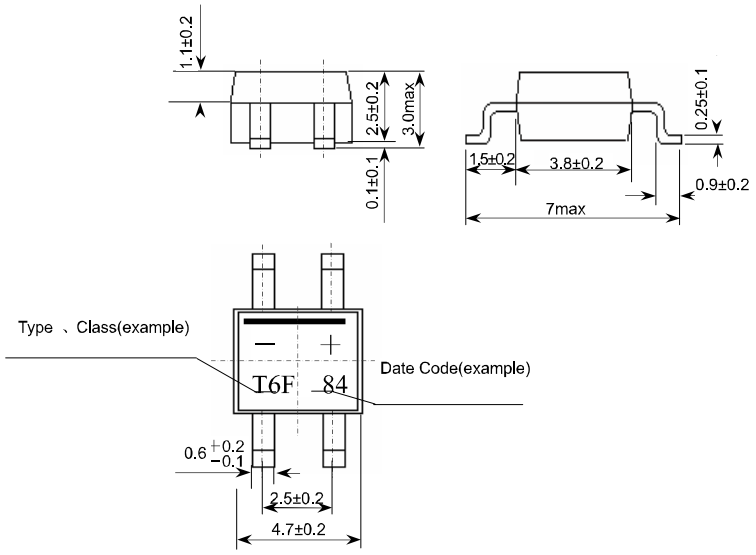
Power Semiconductor Technology

# T1ZB (20~80)F SMD
# Bridge Rectifier

## Features

- $I_o$ 0.8A
- $V_{RRM}$ 200V~800V
- Glass passivated chip
- High surge forward current capability
- Supersmall size
- Component in accordance to ROHS 2002/95/EC and WEEE2002/96/WC
- Halogen Free product

## Outline Dimensions and Mark（Unit：mm）




## Mechanical data

**Case:** ZB(SMD)

Epoxy meets UL 94V-0 flammability rating

**Terminals:** Pure tin plated leads,solderable per J-STD-002 and JESD22-B102, E3 suffix for consumer grade, meet JESD201 class 1A whisker test.

**Polarity:** As marked on body

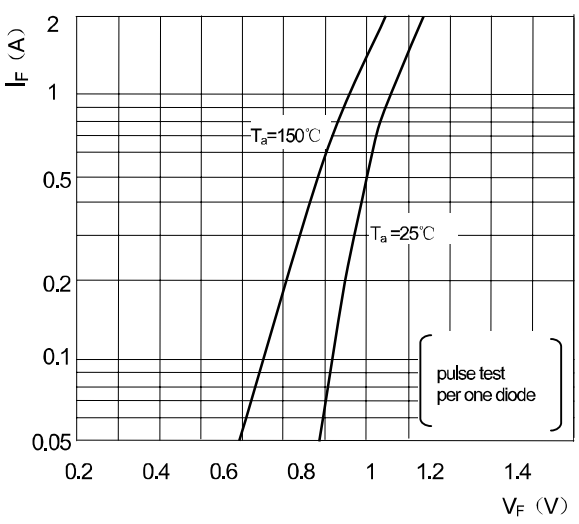
## Limiting Values（Absolute Maximum Rating）

| Item | Symbol | Unit | Conditions | | T1ZB | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 20F | 40F | 60F | 80F |
| Storage Temperature | $T_{stg}$ | ℃ | | | -40 ~ +150 | | | |
| Junction Temperature | $T_j$ | ℃ | | | +150 | | | |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | | | 200 | 400 | 600 | 800 |
| Average Rectified Output Current | $I_o$ | A | 50Hz sine wave, R- load, $T_a$=25℃ | On alumina substrate | 0.8 | | | |
| | | | | On glass-epoxi substrate | 0.5 | | | |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A | 50Hz sine wave, 1 cycle, $T_a$=25℃ | | 30 | | | |

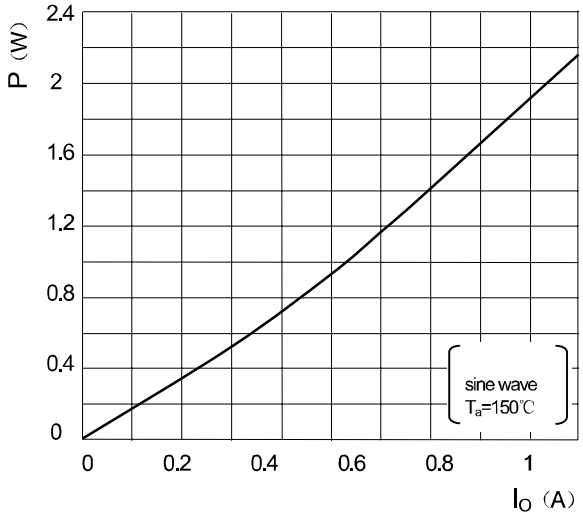
## Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| Item | Symbol | Unit | Test Condition | Max |
|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | V | $I_{FM}$=0.4A, Pulse measurement, Rating of per diode | 1.05 |
| Peak Reverse Current | $I_{RRM1}$ | μA | $V_{RM}$=$V_{RRM}$ , Pulse measurement, Rating of per diode | 10 |
| Thermal Resistance | $R_{\theta J-A}$ | ℃/W | Between junction and ambient ,On alumina substrate | 76 |
| | | | Between junction and ambient ,On glass-epoxi substrate | 134 |
| | $R_{\theta J-L}$ | | Between junction and lead | 20 |

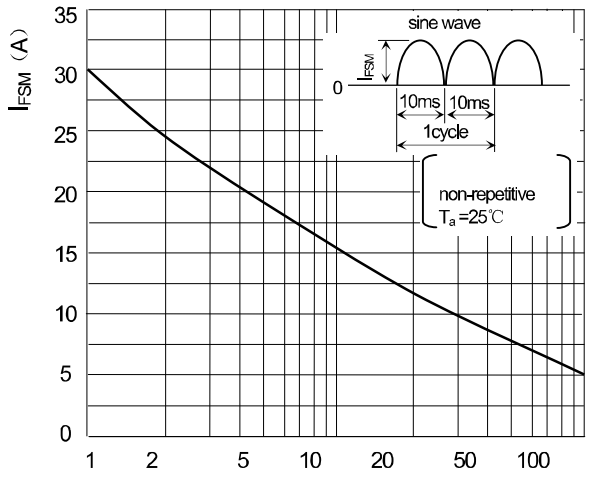
**RATINGS AND CHARACTERISTICS CURVES** ($T_A$ = 25 ℃unless otherwise noted)



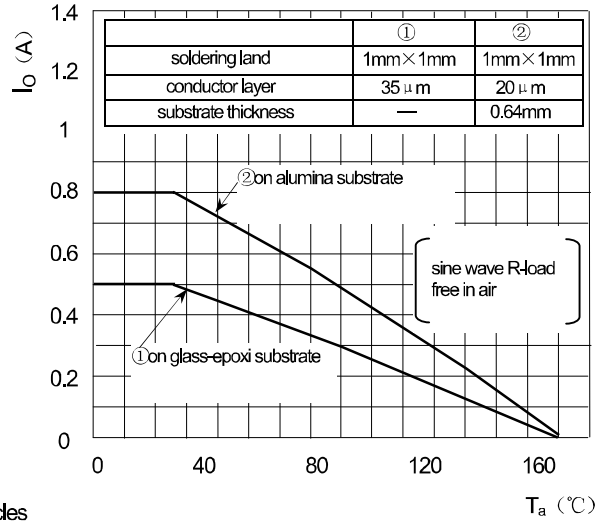

Forward Characteristics




P-$I_O$ Curve




Surge Forward Current Capability




$I_O$-$T_a$ Curve