



SANYO Semiconductors

DATA SHEET

DBA500G

 — Diffused Junction Silicon Diode

50A Single-Phase Bridge Rectifier

Features

- Plastic molded structure
- Peak reverse voltage : $V_{RM}=600V$
- Average output current : $I_O=50A$

Specifications

Absolute Maximum Ratings at $T_c=25^\circ C$

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|---|-------------|-------------|
| Peak Reverse Voltage | V_{RM} | | 600 | V |
| Average Output Current | I_O | 50Hz sine 1cycle peak value, $T_c=95^\circ C$, with heatsink | 50 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, non-repetitive, 1cycle peak value, $T_j=25^\circ C$ | 500 | A |
| Current Squared Time | I^2t | $1ms \leq t < 10ms$, $T_j=25^\circ C$, Rating of per diode | 800 | A^2s |
| Junction Temperature | T_j | | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | | -40 to +150 | $^\circ C$ |
| Dielectric Strength Voltage | V_{dis} | Terminals to case, AC 1 minute | 2 | kV |
| Tightening Torque | TOR | (): recommended value | 0.8(0.6) | $N \cdot m$ |

Electrical Characteristics at $T_c=25^\circ C$ Per Constituent element of bridge.

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------|---------------|-------------------------------|---------|-----|------|----------------|
| | | | min | typ | max | |
| Forward Voltage | V_F | $I_F=25A$ | | | 1.05 | V |
| Reverse Current | I_R | $V_R=600V$ | | | 10 | μA |
| Thermal Resistance | $R_{th(j-c)}$ | With heatsink (Junction-Case) | | | 0.5 | $^\circ C / W$ |

Marking: BA500G

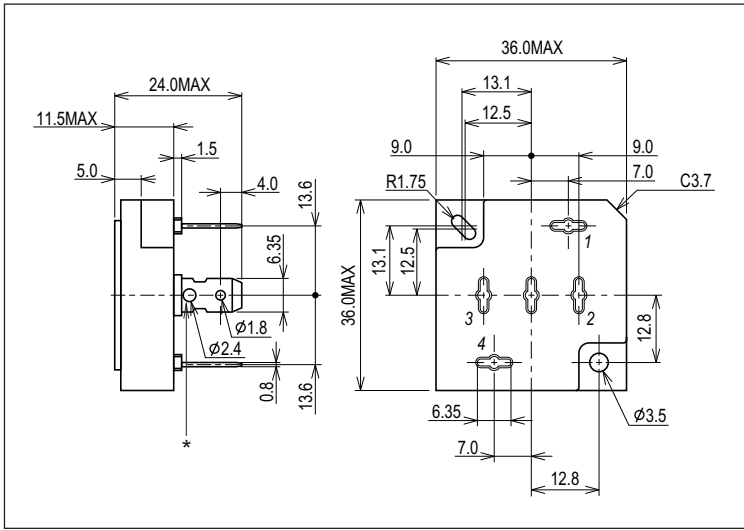
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DBA500G

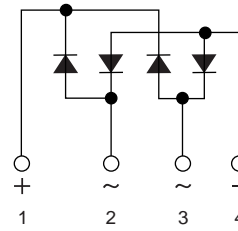
Package Dimensions

unit : mm (typ)

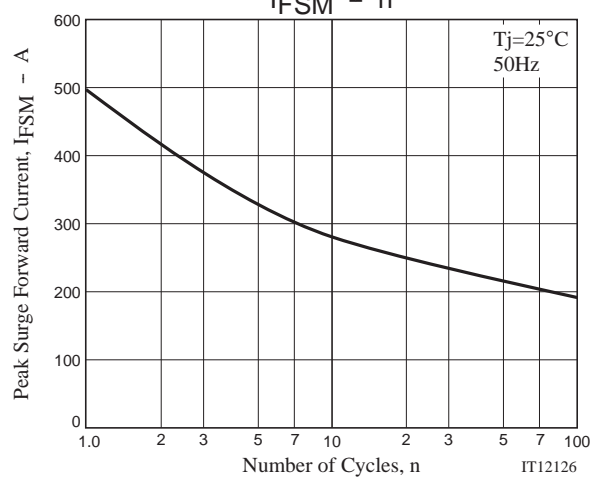
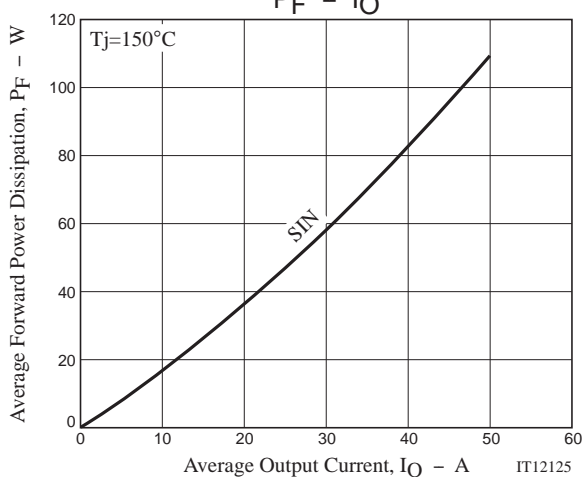
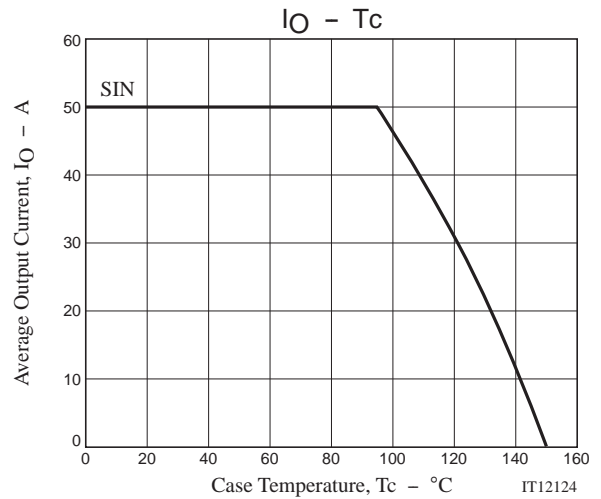
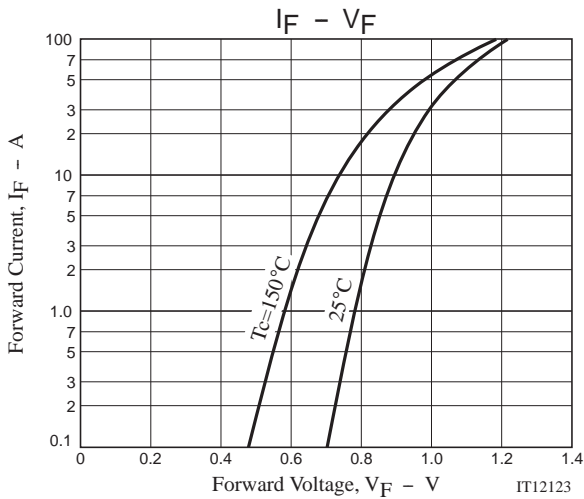
7806-001



Electrical Connection



* : In case of over 30A of I_O , bigger fasten hole should be filled by solder.
Lead-Wire with solder connection also requested for over 30A of I_O .



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