



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 $\leq t < 10$ ms, $T_j=25^\circ C$ , Rating of per diode	800	A <sup>2</sup> s
Junction Temperature	$T_j$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-40 to +150	$^\circ C$
Dilective Strength Voltage	$V_{dis}$	Terminals tc case, AC 1 minute	2	kV
Tightening Torque	TOR	( ): recommended value	0.8(0.6)	N•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	$\mu A$
Thermal Resistance	$R_{th(j-c)}$	With heatsink (Junction-Case)			0.5	$^\circ C / W$

Marking: BA500G

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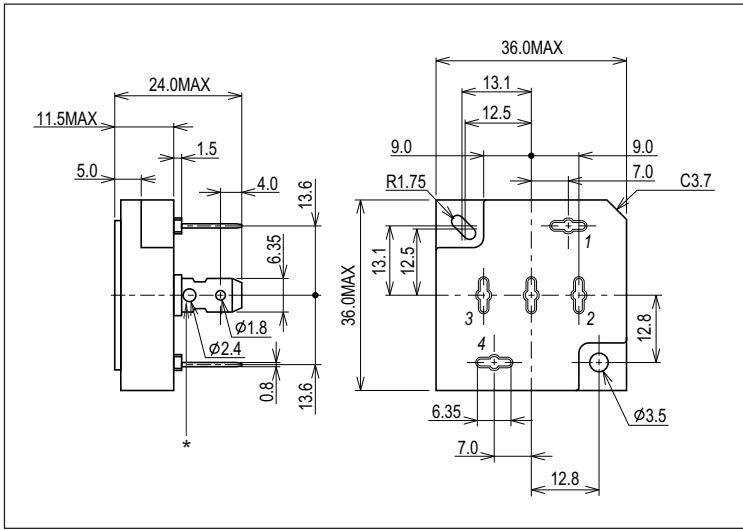
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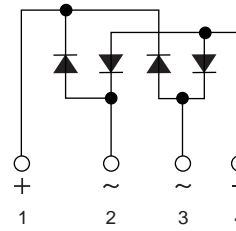
## Package Dimensions

unit : mm (typ)

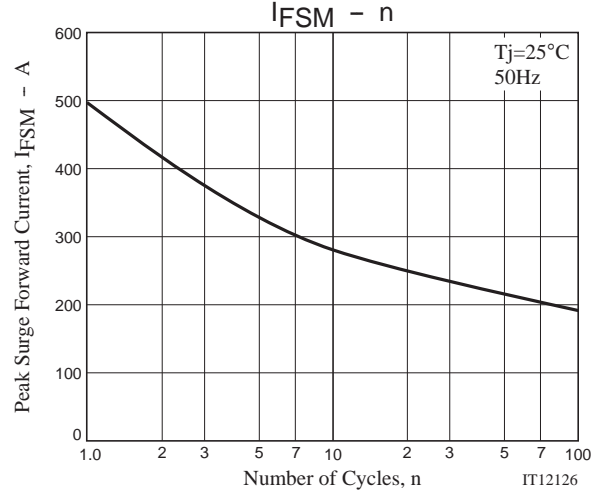
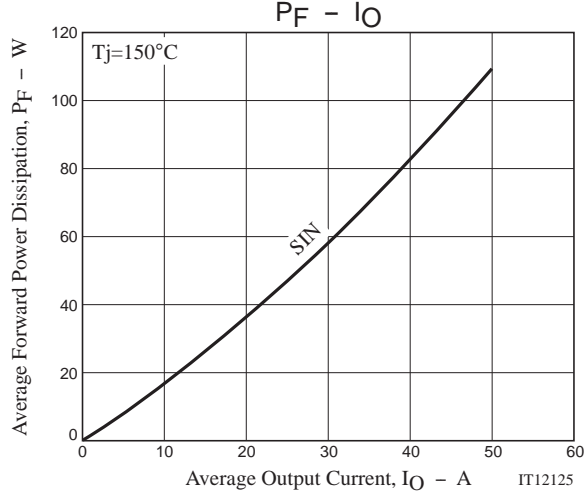
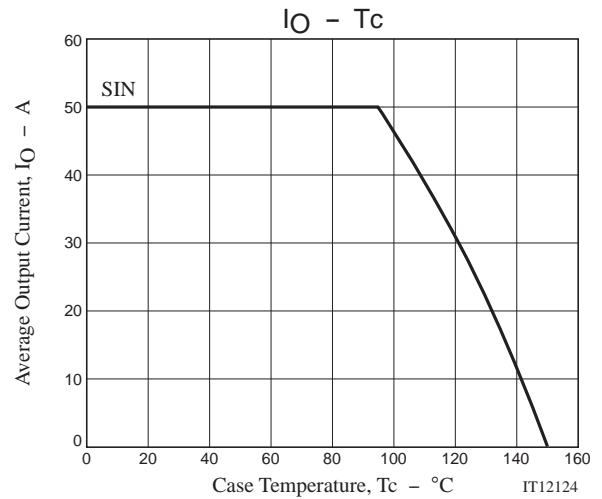
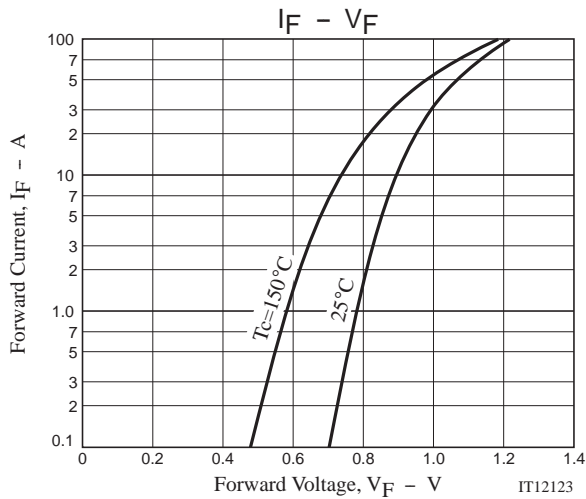
7806-001



## 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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