



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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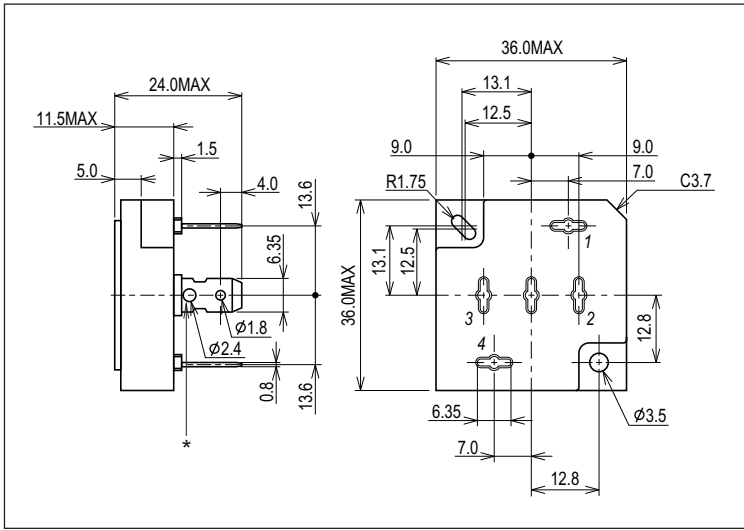
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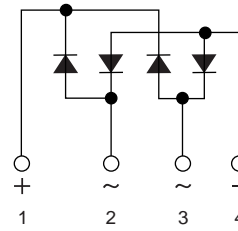
Package Dimensions

unit : mm (typ)

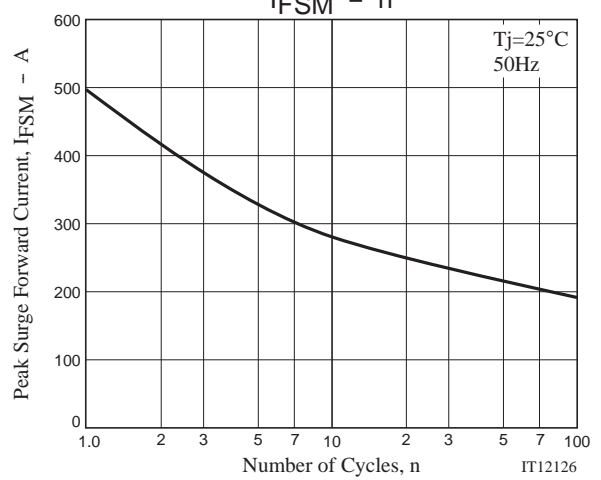
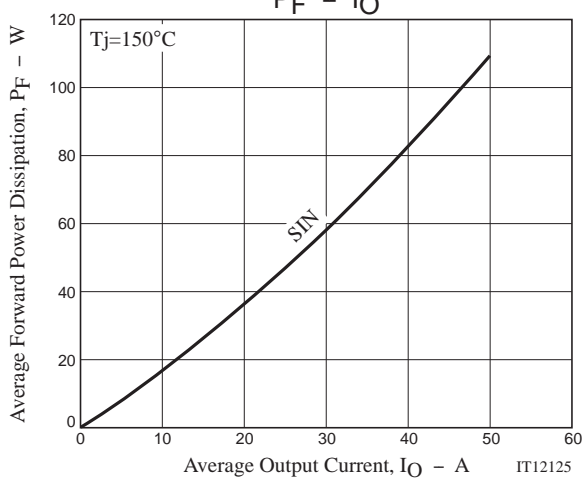
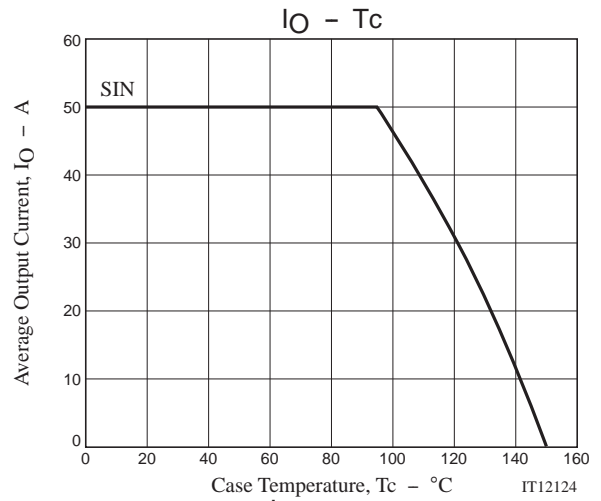
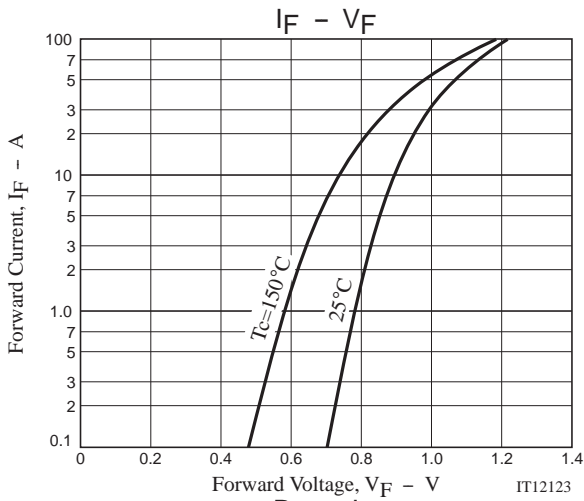
7806-001



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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