

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: GBO25-12NO1
Manufacturer: IXYS
Package: 4-SIP, GBO
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/ixys/gbo25-12no1.html>

Request a Quote:

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Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: <https://antrexco.com>

Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

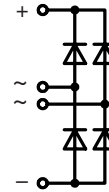
The original manufacturer datasheet follows from the next page.

Single Phase Rectifier Bridge

$$I_{dAV} = 25 \text{ A}$$

$$V_{RRM} = 1200-1600 \text{ V}$$

V_{RSM} V	V_{RRM} V	Standard Types
1300	1200	GBO 25-12NO1
1700	1600	GBO 25-16NO1



Symbol	Conditions	Maximum Ratings	
I_{dAVM} ①	$T_C = 80^\circ\text{C}$, sine 180°	25	A
I_{dAVM} ②	$T_C = 25^\circ\text{C}$, sine 180°	5	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	370 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	390 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	320 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	340 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	680 A ² s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	640 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	510 A ² s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	470 A ² s
T_{VJ}		-40...+150	$^\circ\text{C}$
T_{VJM}		150	$^\circ\text{C}$
T_{stg}		-40...+125	$^\circ\text{C}$
P_{tot}		16	W
M_d Weight	Mounting torque (M3) typ.	0.5-0.8 7	Nm g

Features

- V_{RRM} up to 1600 V
- Low forward voltage drop
- Planar passivated chips
- Low forward voltage drop
- Epoxy meets UL 94V-0

Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

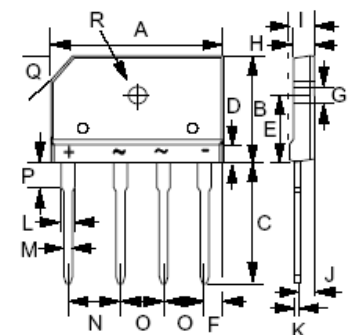
Advantages

- Easy to mount with one screw
- Space and weight savings

Symbol	Conditions	Characteristic Values	
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$	0.05 mA
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq$	1.5 mA
V_F	$I_F = 12.5 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$	1.1 V
V_{T0}	For power-loss calculations only		0.89 V
r_T	$T_{VJ} = T_{VJM}$		12.2 m Ω
R_{thJC}	per diode, DC current		4.3 K/W
	per module		1.1 K/W
R_{thJA}	per diode, DC current		50 K/W
	per module		12.5 K/W
d_{S1}, d_{A1}	Creeping/Striking distance leads to heatsink		2.9 mm
d_{S1}, d_{A1}	Creeping/Striking distance lead to lead		5.6 mm
a	Max. allowable acceleration		50 m/s ²

Data according to IEC 60747 and refer to a single diode unless otherwise stated

I_{dAVM} = bridge output current for resistive load ① mounted on heatsink; ② without heatsink



DIM.	MIN.	MAX.
A	29.70	30.30
B	19.70	20.30
C	17.0	18.0
D	4.70	4.90
E	10.80	11.20
F	2.30	2.70
G	3.10	3.40
H	3.40	3.80
I	4.40	4.80
J	2.50	2.90
K	0.60	0.80
L	2.00	2.40
M	0.90	1.10
N	9.80	10.20
O	7.30	7.70
P	3.80	4.20
Q	(3.0) x 45°	
R	3.10 ϕ	3.40 ϕ
All Dimensions in millimeter		

IXYS reserves the right to change limits, test conditions and dimensions.

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