

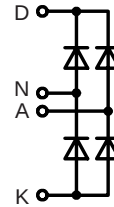
Single Phase Rectifier Bridge

Preliminary data

$$I_{dAVM} = 21 \text{ A}$$

$$V_{RRM} = 600-1200 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
700	600	VBO 19-06NO7
900	800	VBO 19-08NO7
1300	1200	VBO 19-12NO7



Symbol	Conditions	Maximum Ratings	
$I_{dAV} \text{ ①}$	$T_C = 100^\circ\text{C}$, module	21	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	100	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	106	A
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	85	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	90	A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	50	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	47	A ² s
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	36	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	33	A ² s
T_{VJ}		-40...+150	$^\circ\text{C}$
T_{VJM}		150	$^\circ\text{C}$
T_{stg}		-40...+125	$^\circ\text{C}$
V_{ISOL}	50/60 Hz, RMS $t = 1 \text{ min}$	2500	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000	V~
M_d	Mounting torque (M4)	1.5 - 2	Nm
		14 - 18	lb.in.
Weight	typ.	18	g

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

Applications

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

Advantages

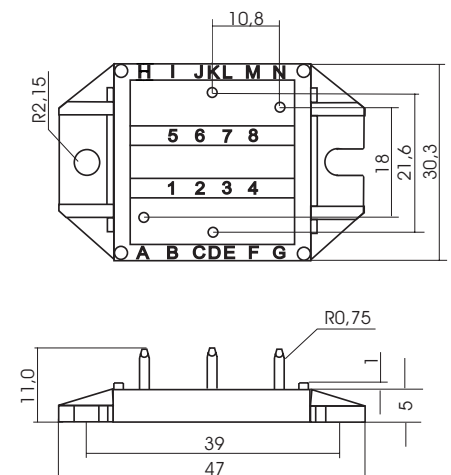
- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- Small and light weight

Dimensions in mm (1 mm = 0.0394")

Symbol	Conditions	Characteristic Values	
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$	0.3 mA
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq$	5 mA
V_F	$I_F = 7 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$	1.12 V
V_{T0}	For power-loss calculations only		0.8 V
r_T			40 mΩ
R_{thJC}	per diode; DC current		2.3 K/W
	per module		0.58 K/W
R_{thJH}	per diode, DC current		2.8 K/W
	per module		0.7 K/W
d_s	Creeping distance on surface		11.2 mm
d_A	Creepage distance in air		9.7 mm
a	Max. allowable acceleration		50 m/s ²

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

① for resistive load at bridge output.



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