Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

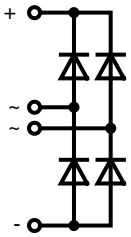
Single Phase Rectifier Bridge

I_{dAV} = 31 A
V_{RRM} = 800-1600 V

Standard and Avalanche Types

V_{RSM} V	V_{BRmin} ① V	V_{RRM} V	Standard Types	Avalanche Types
900		800	VBO 20-08NO2	
1300	1230	1200	VBO 20-12NO2	VBO 20-12AO2
1700	1630	1600	VBO 20-16NO2	VBO 20-16AO2

① For Avalanche Types only



Symbol	Conditions			Maximum Ratings	
I_{dAV} ②	T_C = 85°C, module			31	A
I_{dAVM}	module			40	A
P_{RSM}	$T_{VJ} = T_{VJM}$			3.4	kW
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms	(50 Hz)	300	A
	V_R = 0	t = 8.3 ms	(60 Hz)	315	A
	$T_{VJ} = T_{VJM}$;	t = 10 ms	(50 Hz)	250	A
	V_R = 0	t = 8.3 ms	(60 Hz)	265	A
I^2t	T_{VJ} = 45°C;	t = 10 ms	(50 Hz)	450	A^2s
	V_R = 0	t = 8.3 ms	(60 Hz)	420	A^2s
	$T_{VJ} = T_{VJM}$;	t = 10 ms	(50 Hz)	312	A^2s
	V_R = 0	t = 8.3 ms	(60 Hz)	290	A^2s
T_{VJ}				-40...+150	°C
T_{VJM}				150	°C
T_{stg}				-40...+125	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min		3000	V~
	$I_{ISOL} \leq$ 1 mA	t = 1 s		3600	V~
M_d	Mounting torque	(M5)		1.5-2	Nm
		(10-32 UNF)		13-18	lb.in.
Weight	Typ.			15	g

Symbol	Conditions		Characteristic Values	
I_R	$V_R = V_{RRM}$	T_{VJ} = 25°C	0.3	mA
		$T_{VJ} = T_{VJM}$	5.0	mA
V_F	I_F = 55 A	T_{VJ} = 25°C	1.8	V
V_{T0}	For power-loss calculations only		0.85	V
r_t			14	mΩ
R_{thJC}	per diode; 120° el.		3.00	K/W
	per module		0.75	K/W
R_{thJH}	per diode; 120° el.		3.40	K/W
	per module		0.85	K/W
d_S	Creeping distance on surface		13	mm
d_A	Creepage distance in air ③		9.5	mm
a	Max. allowable acceleration		50	m/s^2

Data according to IEC 60747 and refer to a single diode unless otherwise stated.
② for resistive load at bridge output
③ with isolated fast-on tabs.

Features

- Avalanche rated parts available
- Package with DCB ceramic base plate
- Isolation voltage 3600 V~
- Planar passivated chips
- Low forward voltage drop
- ¼" fast-on terminals
- UL registered E 72873

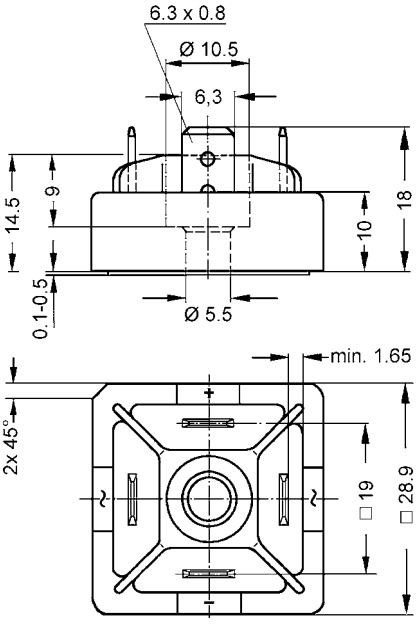
Applications

- 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
- Improved temperature & power cycling

Dimensions in mm (1 mm = 0.0394")



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

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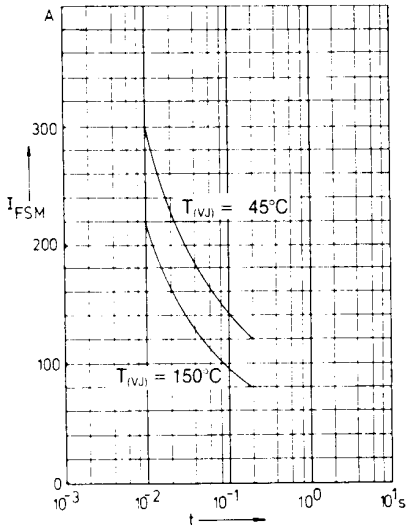

Fig. 1 Surge overload current per diode
I_{FSM}: Crest value, t: duration

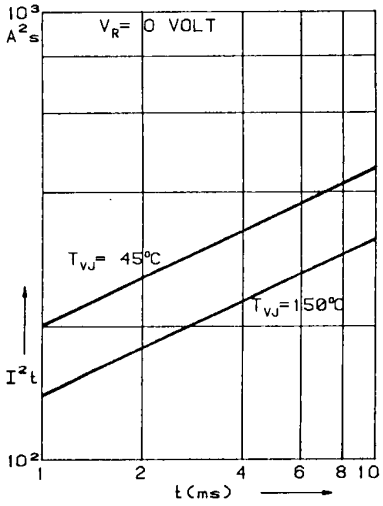

Fig. 2 I^2t versus time (1-10 ms) per diode

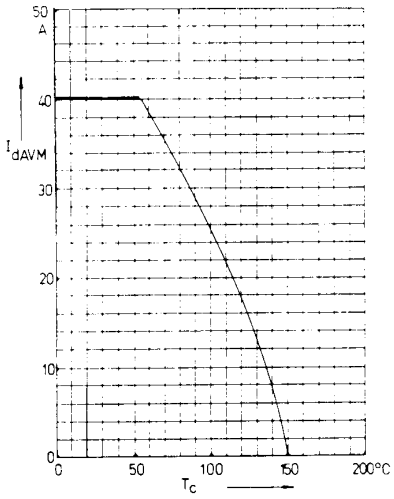

Fig. 3 Max. forward current at case temperature

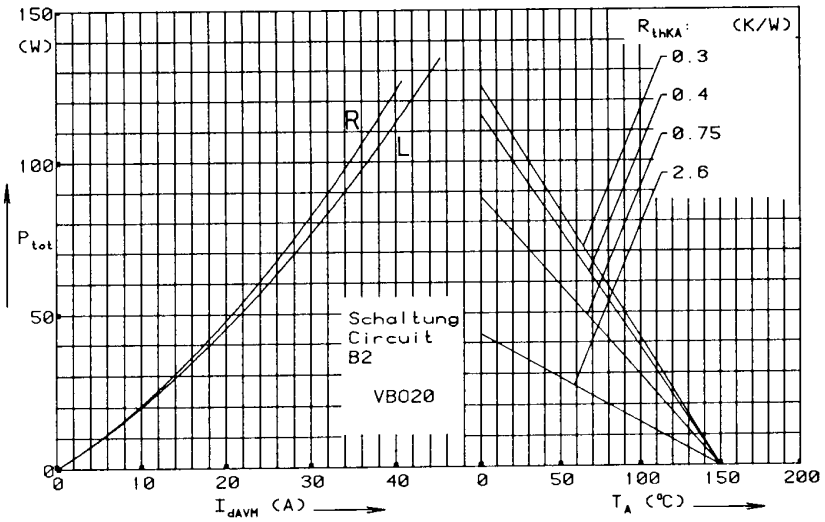

Fig. 4 Power dissipation versus direct output current and ambient temperature

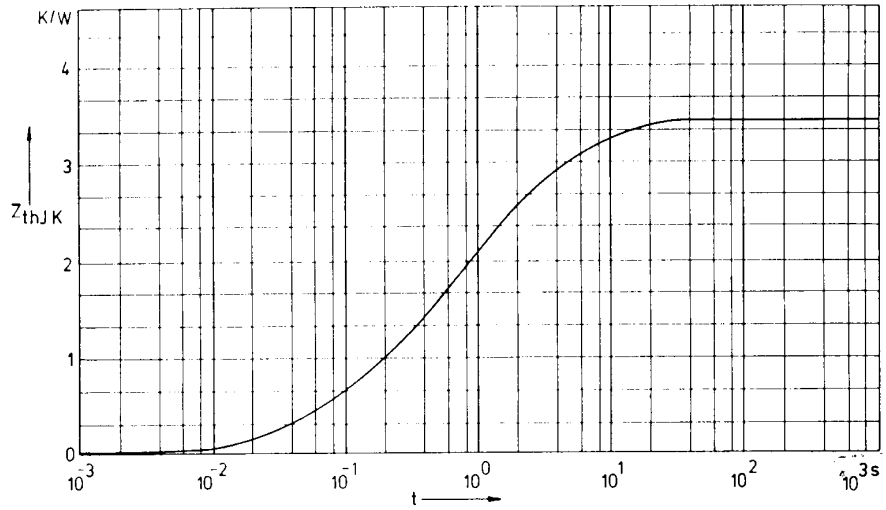

Fig. 5 Transient thermal impedance junction to heatsink per diode

Constants for Z_{thJK} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.775	0.0788
2	1.390	0.504
3	1.255	3.701