



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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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

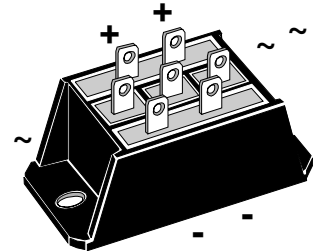
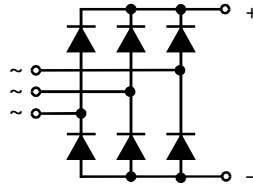


# Three Phase Rectifier Bridge

**$I_{dAV} = 58 \text{ A}$**   
 **$V_{RRM} = 800-1800 \text{ V}$**

$V_{RSM}$ V	$V_{RRM}$ V	Type
900	800	VUO 50-08NO3
1300	1200	VUO 50-12NO3
1500	1400	VUO 50-14NO3
1700	1600	VUO 50-16NO3
1900	1800	VUO 50-18NO3*

\* delivery time on request



Symbol	Test Conditions	Maximum Ratings	
$I_{dAV}$ ①	$T_C = 85^\circ\text{C}$ , module	58 A	
$I_{dAVM}$ ①	module	75 A	
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}$ ; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine $t = 8.3 \text{ ms}$ (60 Hz), sine	500 A 525 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine $t = 8.3 \text{ ms}$ (60 Hz), sine	415 A 440 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine $t = 8.3 \text{ ms}$ (60 Hz), sine	1250 A <sup>2</sup> s 1160 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine $t = 8.3 \text{ ms}$ (60 Hz), sine	860 A <sup>2</sup> s 810 A <sup>2</sup> s
$T_{VJ}$		-40...+125	$^\circ\text{C}$
$T_{VJM}$		125	$^\circ\text{C}$
$T_{stg}$		-40...+125	$^\circ\text{C}$
$V_{ISOL}$	50/60 Hz, RMS	$t = 1 \text{ min}$	3000 V~
	$I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ s}$	3600 V~
$M_d$	Mounting torque (M5)	(10-32 UNF)	2-2.5 Nm 18-22 lb.in.
			50 g
Weight	typ.		

## Features

- Package with DCB ceramic base plate
- Isolation voltage 3600 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- 1/4" fast-on terminals
- UL registered E 72873

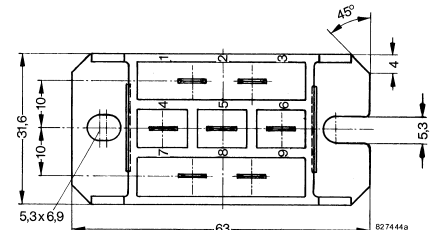
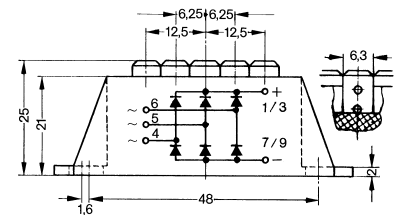
## Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Rectifier for DC motors field current

## Advantages

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

## Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Values	
$I_R$	$V_R = V_{RRM}$	$T_{VJ} = 25^\circ\text{C}$	0.3 mA
	$V_R = V_{RRM}$	$T_{VJ} = T_{VJM}$	5 mA
$V_F$	$I_F = 150 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$		1.9 V
$V_{T0}$	For power-loss calculations only		0.9 V
$r_T$			6.0 mΩ
$R_{thJC}$	per diode, DC current		1.62 K/W
	per module		0.27 K/W
$R_{thJH}$	per diode, DC current		2.22 K/W
	per module		0.37 K/W
$d_S$	Creeping distance on surface		10 mm
$d_A$	Creepage distance in air		9.4 mm
$a$	Max. allowable acceleration		50 m/s <sup>2</sup>

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

① for resistive load at bridge output

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

**Use output terminals in parallel connection!**

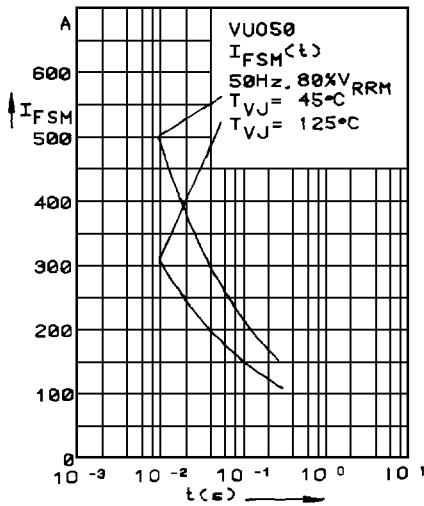


Fig. 1 Surge overload current  
 $I_{FSM}$ : Crest value,  $t$ : duration

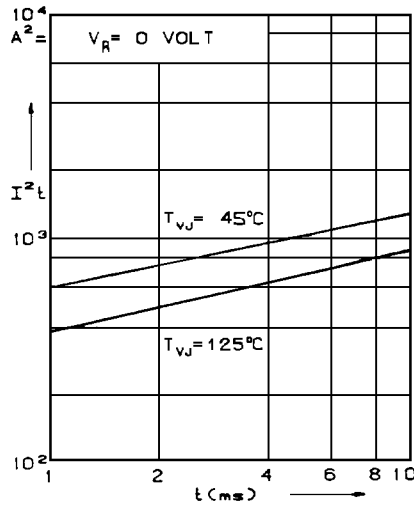


Fig. 2  $I^2t$  versus time (1-10 ms)

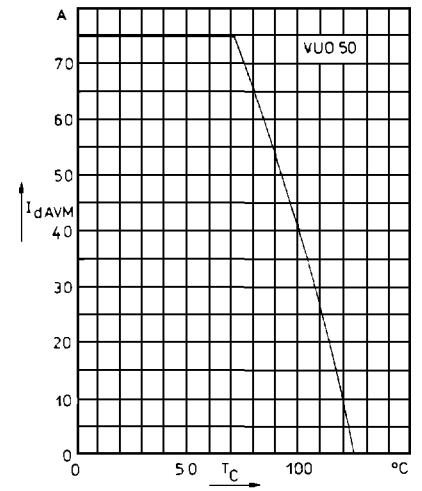


Fig. 3 Max. forward current at case temperature

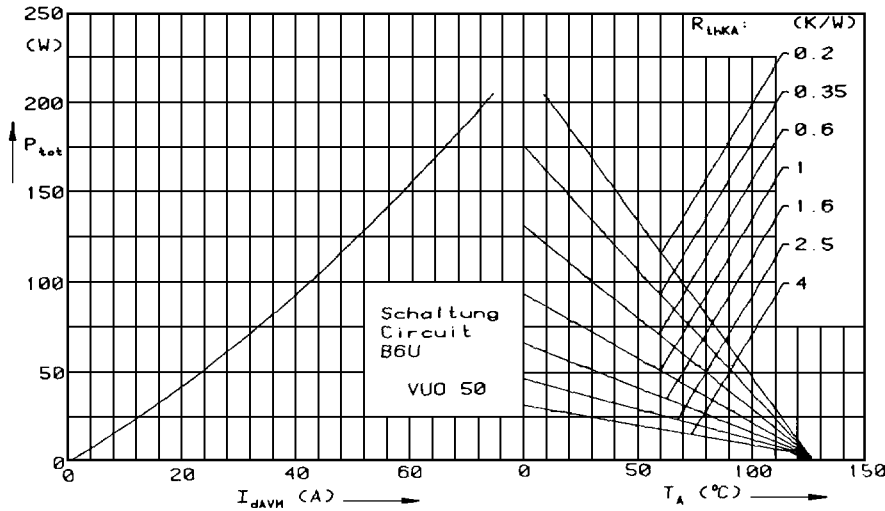


Fig. 4 Power dissipation versus forward current and ambient temperature

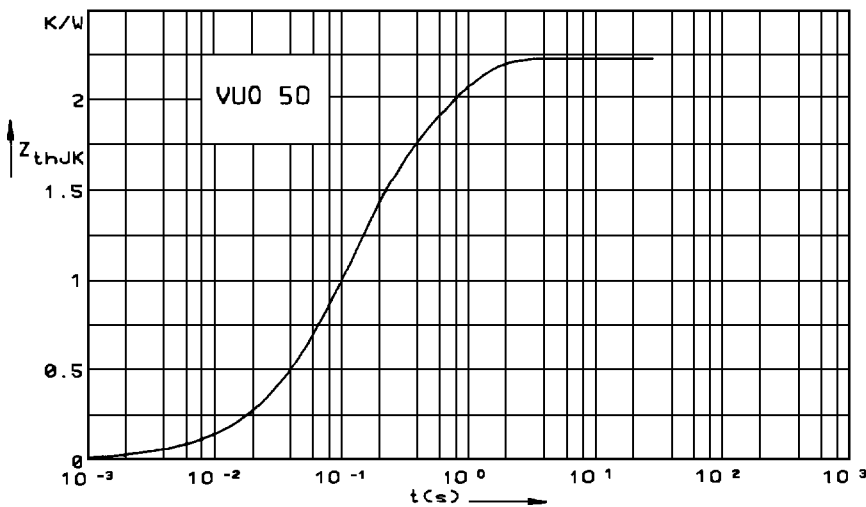


Fig. 5 Transient thermal impedance junction to heatsink per diode

Constants for  $Z_{thJK}$  calculation:

i	$R_{thi}$ (K/W)	$t_i$ (s)
1	1.21	0.1015
2	0.1339	0.1026
3	0.2763	0.4919
4	0.600	0.620