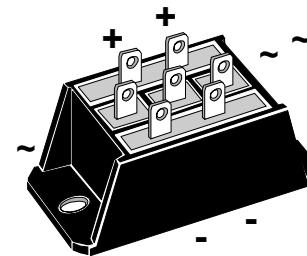
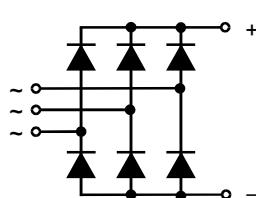


Three Phase Rectifier Bridge

$I_{dAV} = 37 \text{ A}$
 $V_{RRM} = 800-1800 \text{ V}$

V_{RSM} V	V_{RRM} V	Type
900	800	VUO 30-08NO3
1300	1200	VUO 30-12NO3
1500	1400	VUO 30-14NO3
1700	1600	VUO 30-16NO3
1900	1800	VUO 30-18NO3*

* delivery time on request



Symbol	Test Conditions	Maximum Ratings		
I_{dAV} ①	$T_c = 85^\circ\text{C}$, module	37	A	
I_{dAVM} ①	module	50	A	
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	300	A	
	$t = 10 \text{ ms (50 Hz), sine}$ $t = 8.3 \text{ ms (60 Hz), sine}$	330	A	
	$T_{VJ} = T_{VJM}$ $V_R = 0$	270	A	
	$t = 10 \text{ ms (50 Hz), sine}$ $t = 8.3 \text{ ms (60 Hz), sine}$	290	A	
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	450	A^2s	
	$t = 10 \text{ ms (50 Hz), sine}$ $t = 8.3 \text{ ms (60 Hz), sine}$	460	A^2s	
	$T_{VJ} = T_{VJM}$ $V_R = 0$	365	A^2s	
	$t = 10 \text{ ms (50 Hz), sine}$ $t = 8.3 \text{ ms (60 Hz), sine}$	355	A^2s	
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 $I_{ISOL} \leq 1 \text{ mA}$	3000	V~	
	$t = 1 \text{ min}$ $t = 1 \text{ s}$	3600	V~	
M_d	Mounting torque (M5) (10-32 UNF)	2-2.5 18-22	Nm lb.in.	
Weight	typ.	50	g	

Symbol	Test Conditions	Characteristic Values		
I_R	$V_R = V_{RRM}$; $V_R = V_{RRM}$;	0.3	mA	
	$T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = T_{VJM}$	5	mA	
V_F	$I_F = 150 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	2.55	V	
V_{TO}	For power-loss calculations only	0.9	V	
r_T		11	$\text{m}\Omega$	
R_{thJC}	per diode, DC current per module	2.4 0.4	K/W	
R_{thJH}	per diode, DC current per module	3.0 0.5	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^2	

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.

Features

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

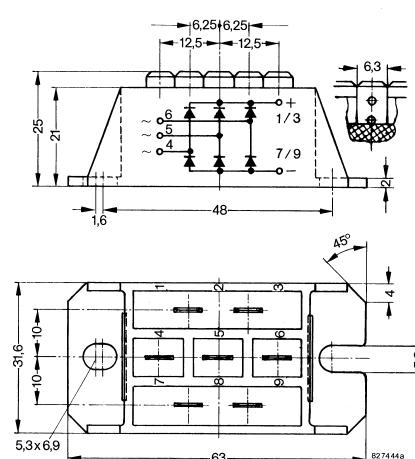
Applications

- 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")



Use output terminals in parallel connection!

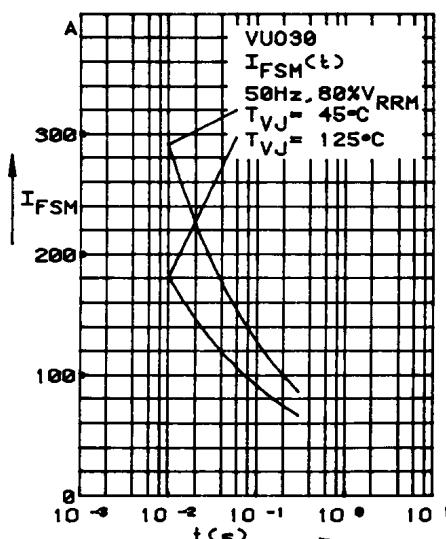


Fig. 1 Surge overload current
 I_{FSM} : Crest value, t : duration

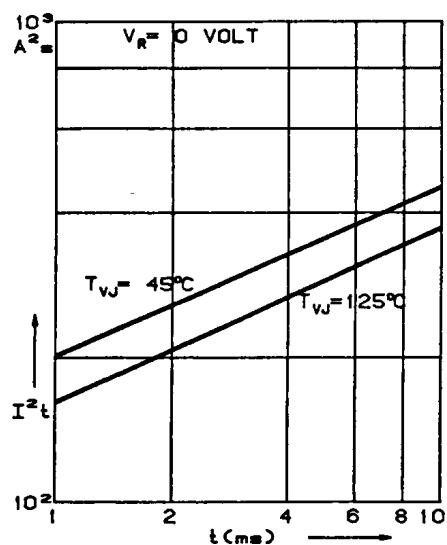


Fig. 2 I^2t versus time (1-10 ms)

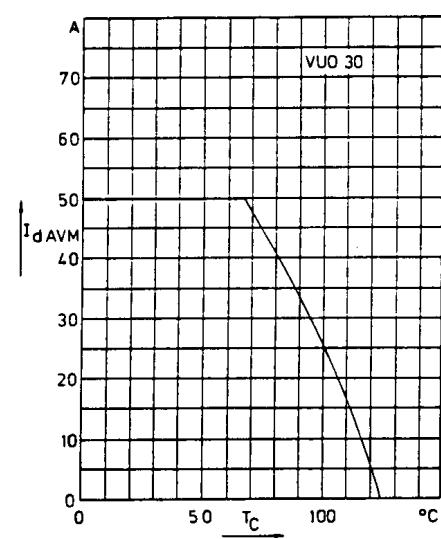


Fig. 3 Max. forward current at case temperature

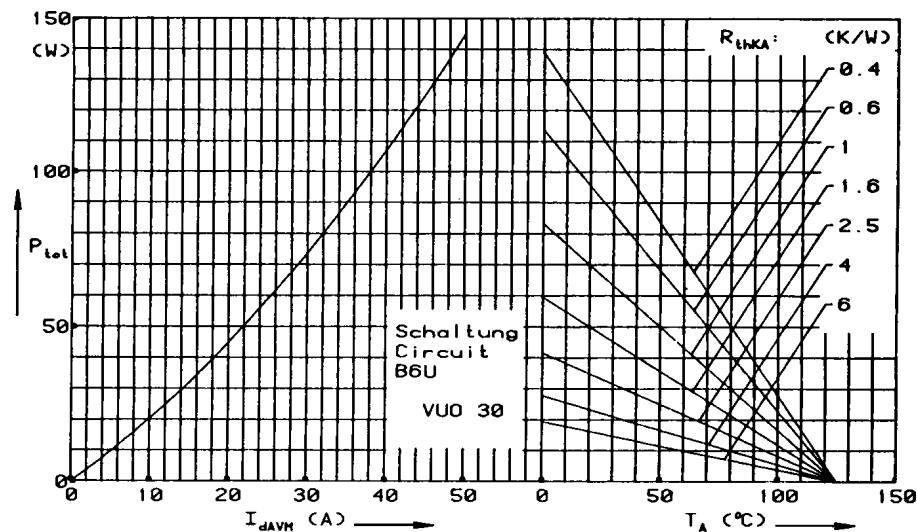


Fig. 4 Power dissipation versus forward current and ambient temperature

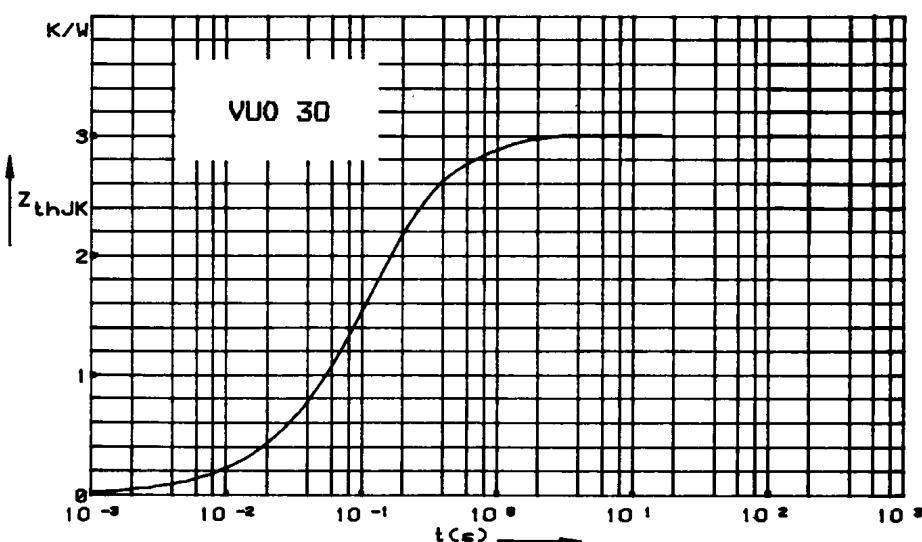


Fig. 5 Transient thermal impedance junction to heatsink per diode

Constants for Z_{thJK} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.489	0.0717
2	0.544	0.1241
3	1.376	0.1214
4	0.6	0.620