

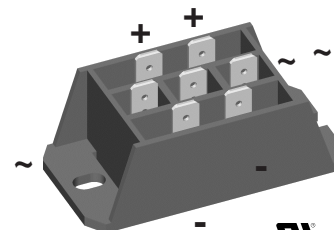
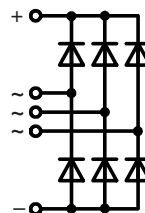
Three Phase Rectifier Bridge

$$I_{dAV} = 37 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

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



UL E72873

Symbol	Conditions		Maximum Ratings	
I_{dAV} ①	T _C = 85°C, module		37	A
I_{dAVM} ①	module		50	A
I_{FSM}	T _{VJ} = 45°C; V _R = 0	t = 10 ms (50 Hz), sine	300	A
		t = 8.3 ms (60 Hz), sine	330	A
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	270	A
		t = 8.3 ms (60 Hz), sine	290	A
I²t	T _{VJ} = 45°C V _R = 0	t = 10 ms (50 Hz), sine	450	A²s
		t = 8.3 ms (60 Hz), sine	460	A²s
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	365	A²s
		t = 8.3 ms (60 Hz), sine	355	A²s
T_{VJ}			-40...+125	°C
T_{VJM}			125	°C
T_{stg}			-40...+125	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min	3000	V~
	I _{ISOL} ≤ 1 mA	t = 1 s	3600	V~
M_d	Mounting torque	(M5)	2-2.5	Nm
		(10-32 UNF)	18-22	lb.in.
Weight	typ.		50	g

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

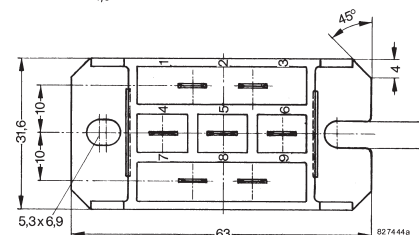
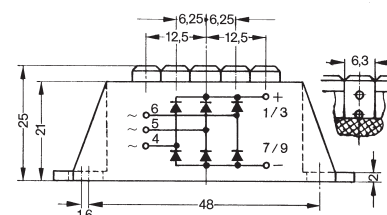
Applications

- 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")



Use output terminals in parallel connection!

Symbol	Conditions	Characteristic Values	
I_R	V_R = V_{RRM} ;	T_{VJ} = 25°C	0.3 mA
	V_R = V_{RRM} ;	T_{VJ} = T_{VJM}	5 mA
V_F	I_F = 150 A;	T_{VJ} = 25°C	2.55 V
V_{T0}	For power-loss calculations only		0.9 V
r_T			11 mΩ
R_{thJC}	per diode, DC current		2.4 K/W
	per module		0.4 K/W
R_{thJH}	per diode, DC current		3.0 K/W
	per module		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

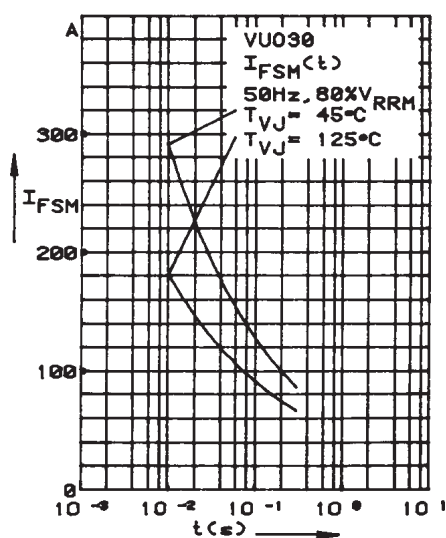


Fig. 1 Surge overload current
 I_{FSM} : Crest value, t : duration

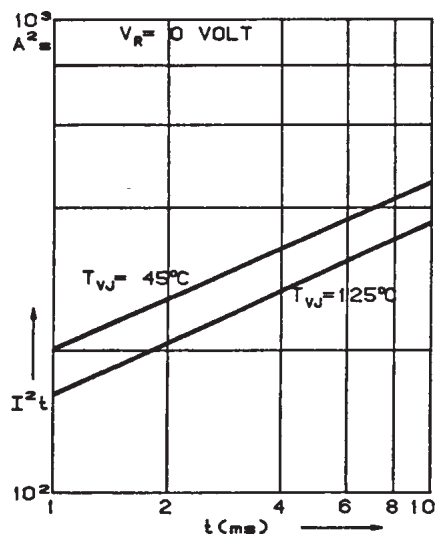


Fig. 2 I^2t versus time (1-10 ms)

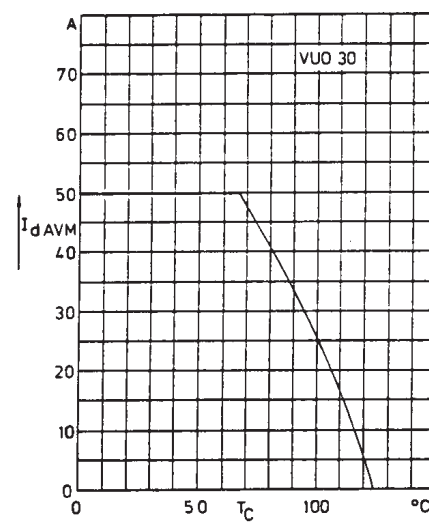


Fig. 3 Max. forward current
at case temperature

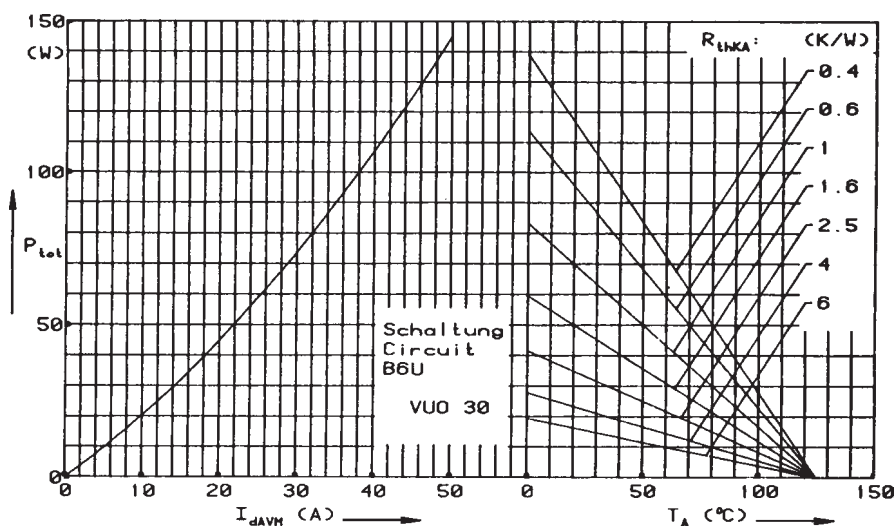


Fig. 4 Power dissipation versus forward current and ambient temperature

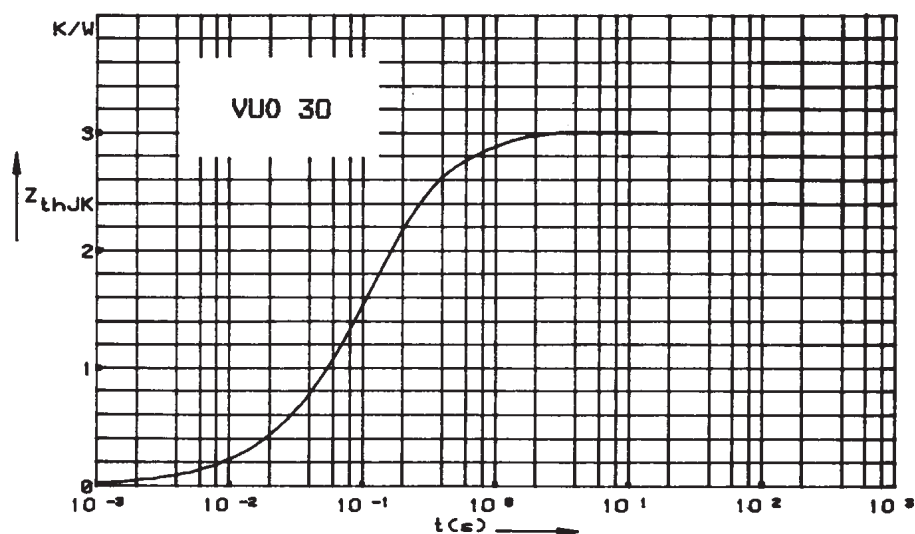


Fig. 5 Transient thermal impedance junction to heatsink per diode

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