RGB ELEKTRONIKA
Centrum automatyki przemysłowej

DATASHEET

IXYS

VUO 55-12 N07

OTHER SYMBOLS:

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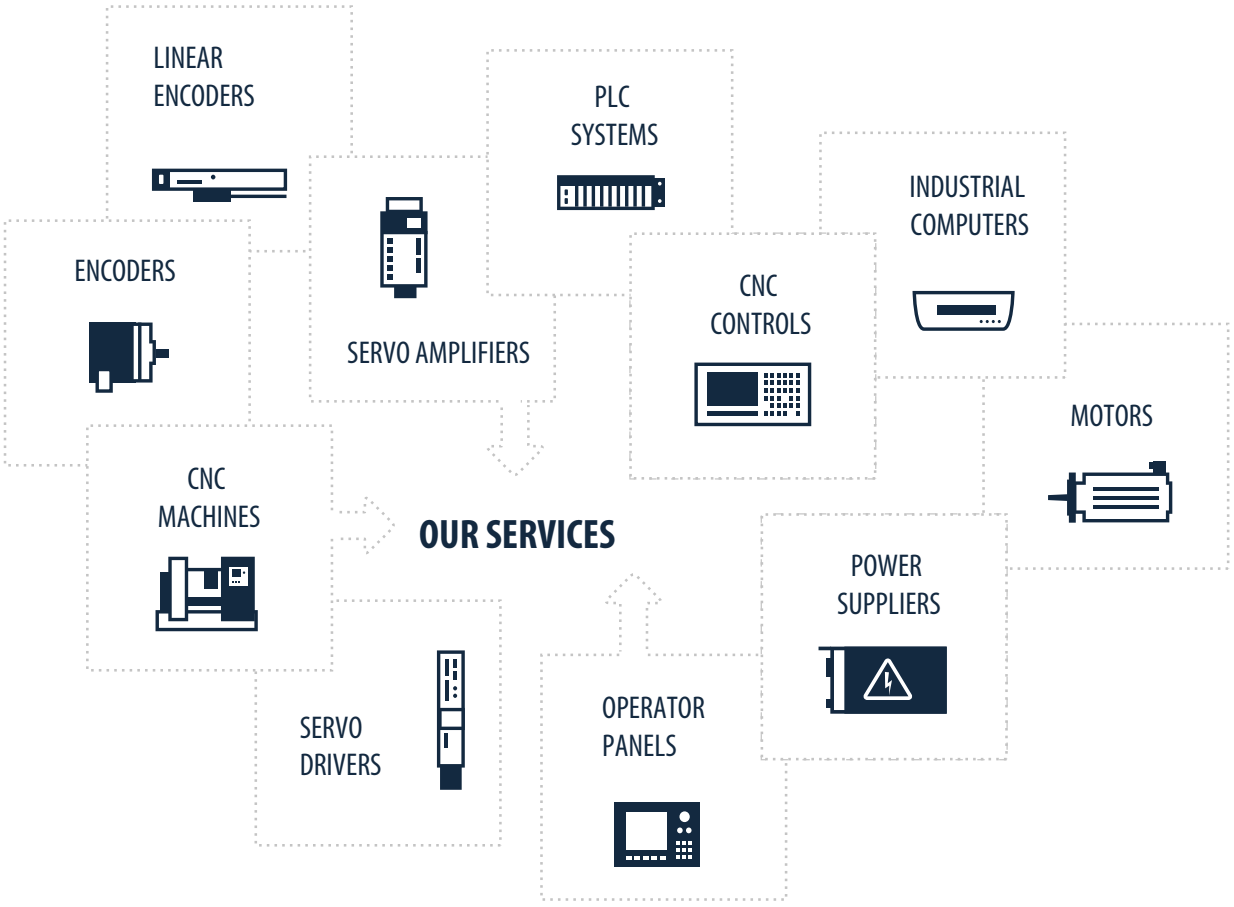
Repair **this product** with RGB ELEKTRONIKA

ORDER A DIAGNOSIS »



At our premises in Wrocław, we have a fully equipped servicing facility. Here we perform all the repair works and test each later sold unit. Our trained employees, equipped with a wide variety of tools and having several testing stands at their disposal, are a guarantee of the highest quality service.

Buy **this product** at RGB AUTOMATYKA

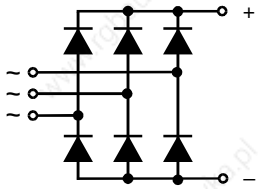
BUY »

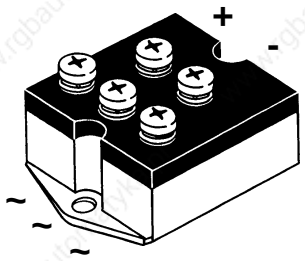
Three Phase Rectifier Bridge

I_{dAVM} = 58 A
V_{RRM} = 1200-1800 V

V_{RSM} V	V_{RRM} V	Type
1200	1200	VUO 55-12NO7
1400	1400	VUO 55-14NO7
1600	1600	VUO 55-16NO7
1800	1800	VUO 55-18NO7*

* delivery time on request





Symbol	Test Conditions		Maximum Ratings	
I_{dAVM}	T_C = 85°C, module		58	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	750	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	820	A
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	670	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	740	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	2800	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	2820	A^2s
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	2250	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	2300	A^2s
T_{VJ}			-40...+150	°C
T_{VJM}			150	°C
T_{stg}			-40...+150	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min	2500	V~
	I_{ISOL} ≤ 1 mA	t = 1 s	3000	V~
M_d	Mounting torque (M5)		5 ± 15 %	Nm
			44 ± 15 %	lb.in.
	Terminal connection torque (M5)		3 ± 15 %	Nm
			26 ± 15 %	lb.in.
Weight	typ.		260	g

Symbol	Test Conditions		Characteristic Values		
I_R	V_R = V_{RRM};	T_{VJ} = 25°C	≤	0.3	mA
	V_R = V_{RRM};	T_{VJ} = T_{VJM}	≤	10.0	mA
V_F	I_F = 150 A;	T_{VJ} = 25°C	≤	1.6	V
V_{T0}	For power-loss calculations only			0.85	V
r_T				8	mΩ
R_{thJC}	per diode; DC current			2.7	K/W
	per module			0.45	K/W
R_{thJH}	per diode; DC current			3.06	K/W
	per module			0.51	K/W

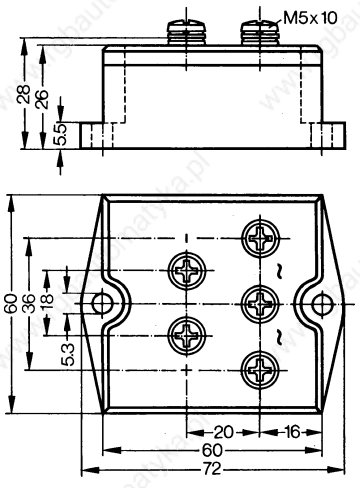
Data according to IEC 60747 and refer to a single diode unless otherwise stated.
IXYS reserves the right to change limits, test conditions and dimensions.

Features
- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- 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 two screws
- Space and weight savings
- Improved temperature and power cycling

Dimensions in mm (1 mm = 0.0394")



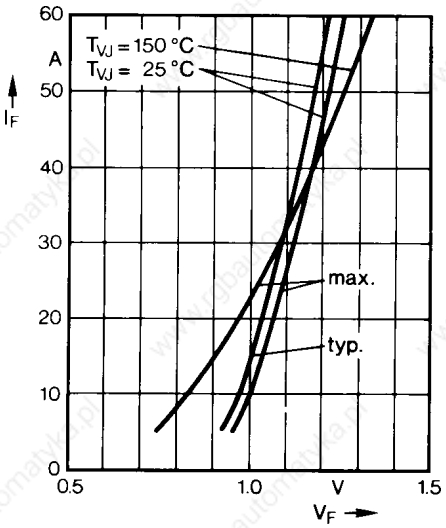


Fig. 1 Forward current versus voltage drop per diode

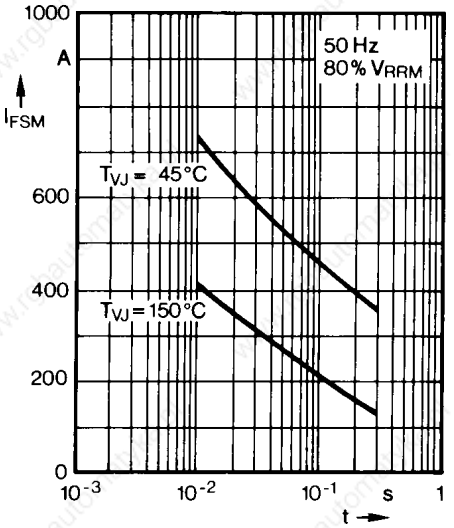


Fig. 2 Surge overload current per diode
I_{FSM}: Crest value. t: duration

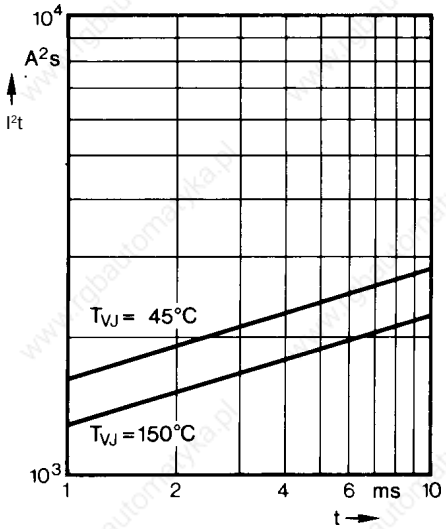


Fig. 3 I^2t versus time (1-10 ms) per diode

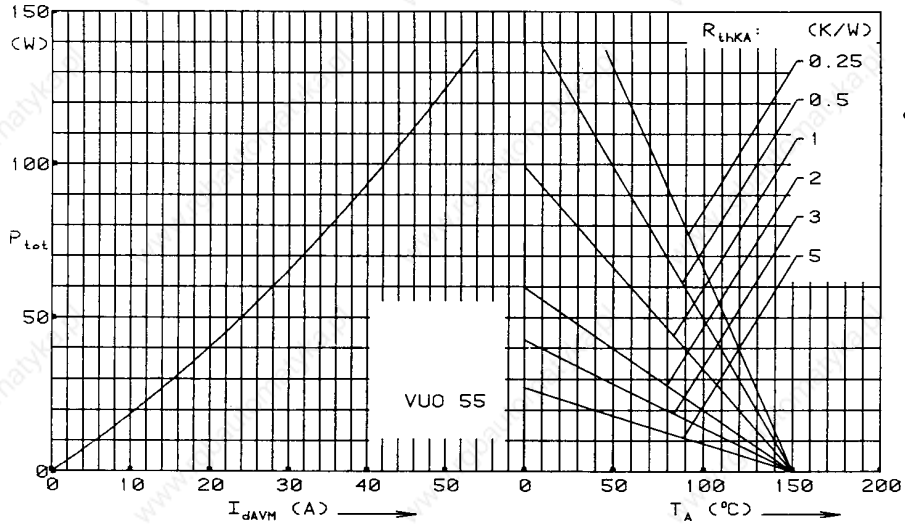


Fig. 4 Power dissipation versus direct output current and ambient temperature

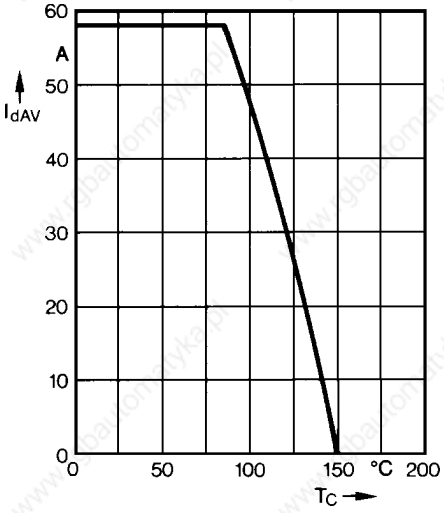


Fig. 5 Maximum forward current at case temperature

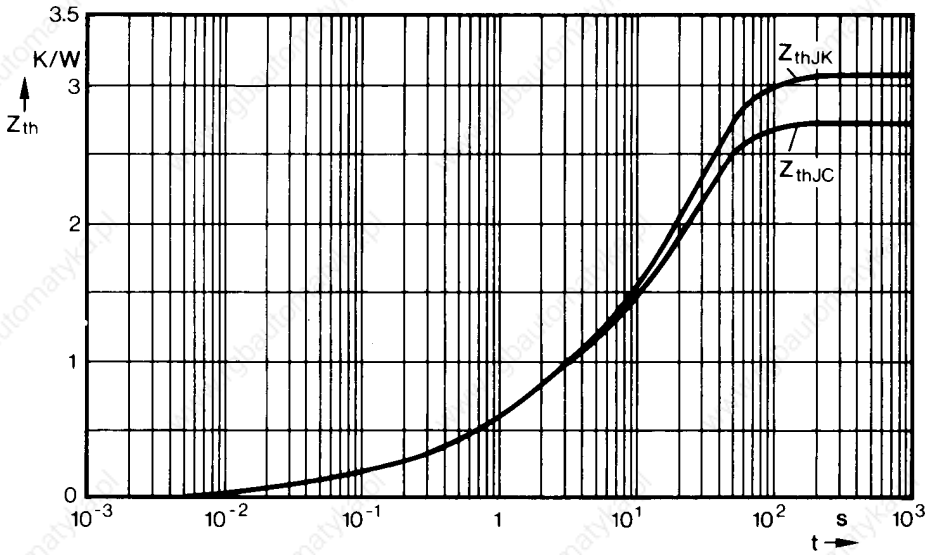


Fig. 6 Transient thermal impedance per diode

Constants for Z_{thJC} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.036	0.013
2	0.149	0.034
3	0.615	1.35
4	1.9	23.0

Constants for Z_{thJK} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.036	0.013
2	0.149	0.034
3	0.615	1.35
4	1.9	23.0
5	0.36	52.0