advanced

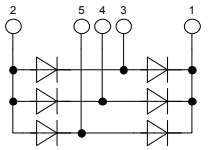
Standard Rectifier Module

3~ Bipolar Bridge

V_{RRM} = 1600 V
I_{DAV} = 92 A
V_F = 1 V

Part number

VUO84-16NO7



Features / Advantages:

- Planar passivated chips
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour

Applications:

- Diode Bridge for main rectification

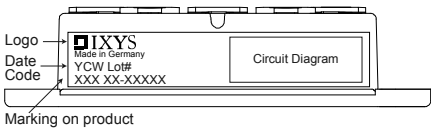
Package: pending

- Housing: PWS-D Flat
- Cu base plate internal DCB isolated
- Easy to mount with two screws
- RoHS compliant

Symbol	Definition	Conditions		Ratings min.	typ.	max.	Unit
V_{RRM}	*max. repetitive reverse voltage*		T_{VJ} = 25°C			1600	V
I_R	*reverse current*	V_R = 1600 V	T_{VJ} = 25°C			100	µA
		V_R = 1600 V	T_{VJ} = 150°C			1.5	mA
V_F	*forward voltage*	I_F = 30 A	T_{VJ} = 25°C			1.10	V
		I_F = 60 A				1.22	V
		I_F = 30 A	T_{VJ} = 125°C			1.00	V
		I_F = 60 A				1.20	V
I_{DAV}	*bridge output current*	120° sine	T_C = 115°C			92	A
V_{F0}	*threshold voltage* } *for power loss calculation only*		T_{VJ} = 150°C			0.78	V
r_F	*slope resistance* }					6.6	mΩ
R_{thJC}	*thermal resistance junction to case*					0.75	K/W
T_{VJ}	*virtual junction temperature*			-40		150	°C
P_{tot}	*total power dissipation*		T_C = 25°C			160	W
I_{FSM}	*max. forward surge current*	t = 10 ms; (50 Hz), sine	T_{VJ} = 45°C			850	A
		t = 8,3 ms; (60 Hz), sine	V_R = 0 V			920	A
		t = 10 ms; (50 Hz), sine	T_{VJ} = 150°C			725	A
		t = 8,3 ms; (60 Hz), sine	V_R = 0 V			780	A
I^2t	*value for fusing*	t = 10 ms; (50 Hz), sine	T_{VJ} = 45°C			3.62	kA²s
		t = 8,3 ms; (60 Hz), sine	V_R = 0 V			3.52	kA²s
		t = 10 ms; (50 Hz), sine	T_{VJ} = 150°C			2.63	kA²s
		t = 8,3 ms; (60 Hz), sine	V_R = 0 V			2.53	kA²s
C_J	*junction capacitance*	V_R = 400 V; f = 1 MHz	T_{VJ} = 25°C		27		pF

advanced

Symbol	Definition	Conditions	Ratings min.	typ.	max.	Unit
I_{RMS}	*RMS current*	per pin			200	A
R_{thCH}	*thermal resistance case to heatsink*			0.10		K/W
T_{stg}	*storage temperature*		-40		125	°C
Weight				118		g
M_D	*mounting torque*		4.25		5.75	Nm
V_{ISOL}	*isolation voltage*	t = 1 second	3600			V
		t = 1 minute	3000			V
d_S	*creapage distance on surface*		10			mm
d_A	*striking distance through air*		9.4			mm



Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Code Key
Standard	VUO84-16NO7	VUO84-16NO7	Box	10	508510

Similar Part	Package	Voltage class
VUO82-16NO7	PWS-D	1600

Outlines PWS-D Flat