

Standard Rectifier Module

3~ Bipolar Bridge

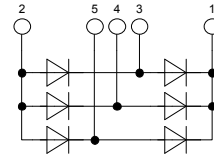
$$V_{RRM} = 1600 \text{ V}$$

$$I_{DAV} = 164 \text{ A}$$

$$V_F = 1.02 \text{ V}$$

Part number

VUO162-16NO7



Features / Advantages:

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

Applications:

- Diode Bridge for main rectification

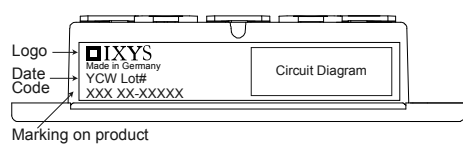
Package:

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

Ratings

Symbol	Definition	Conditions	min.	typ.	max.	Unit
V_{RRM}	max. repetitive reverse voltage	$T_{VJ} = 25^{\circ}\text{C}$			1600	V
I_R	reverse current	$V_R = 1600 \text{ V}$ $T_{VJ} = 25^{\circ}\text{C}$			200	μA
		$V_R = 1600 \text{ V}$ $T_{VJ} = 150^{\circ}\text{C}$			2	mA
V_F	forward voltage	$I_F = 55 \text{ A}$ $T_{VJ} = 25^{\circ}\text{C}$			1.11	V
		$I_F = 110 \text{ A}$ $T_{VJ} = 25^{\circ}\text{C}$			1.25	V
		$I_F = 55 \text{ A}$ $T_{VJ} = 125^{\circ}\text{C}$			1.02	V
		$I_F = 110 \text{ A}$ $T_{VJ} = 125^{\circ}\text{C}$			1.24	V
I_{DAV}	bridge output current	120° sine $T_C = 115^{\circ}\text{C}$			164	A
V_{F0}	threshold voltage	$T_{VJ} = 150^{\circ}\text{C}$			0.77	V
r_F	slope resistance				4.1	mΩ
R_{thJC}	thermal resistance junction to case				0.40	K/W
T_{VJ}	virtual junction temperature		-40		150	$^{\circ}\text{C}$
P_{tot}	total power dissipation	$T_C = 25^{\circ}\text{C}$			310	W
I_{FSM}	max. forward surge current	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$ $T_{VJ} = 45^{\circ}\text{C}$			1.80	kA
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$ $V_R = 0 \text{ V}$			1.95	kA
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$ $T_{VJ} = 150^{\circ}\text{C}$			1.53	kA
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$ $V_R = 0 \text{ V}$			1.65	kA
I^2t	value for fusing	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$ $T_{VJ} = 45^{\circ}\text{C}$			16.2	kA^2s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$ $V_R = 0 \text{ V}$			15.7	kA^2s
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$ $T_{VJ} = 150^{\circ}\text{C}$			11.7	kA^2s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$ $V_R = 0 \text{ V}$			11.3	<

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
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				220		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	creepage 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	VUO162-16NO7	VUO162-16NO7	Box	5	509870

Similar Part	Package	Voltage class
VUO160-16NO7	PWS-E	1600

Outlines PWS-E Flat

