

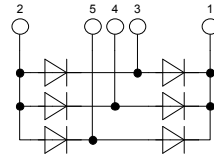
Standard Rectifier Module

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:

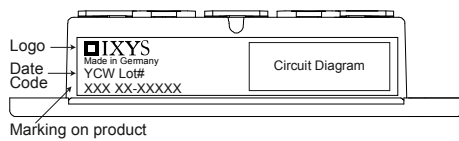
- Housing: PWS-E Flat
- Cu base plate internal DCB isolated
- Easy to mount with two screws
- RoHS compliant

Ratings

Symbol	Definition	Conditions	Ratings			Unit	
			min.	typ.	max.		
V_{RRM}	max. repetitive reverse voltage				1600	V	
I_R	reverse current	$V_R = 1600 \text{ V}$			200	μA	
		$V_R = 1600 \text{ V}$			2	mA	
V_F	forward voltage	$I_F = 55 \text{ A}$			1.11	V	
		$I_F = 110 \text{ A}$			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			164	A	
V_{F0}	threshold voltage	} for power loss calculation only			0.77	V	
r_F	slope resistance						4.1
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				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 ² s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			15.7	kA ² s
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$	$T_{VJ} = 150^\circ\text{C}$			11.7	kA ² s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			11.3	kA ² s
C_J	junction capacitance	$V_R = 400 \text{ V}; f = 1 \text{ MHz}$	$T_{VJ} = 25^\circ\text{C}$		60	pF	

tentative

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

