

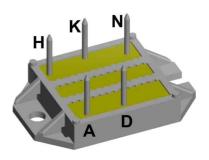
Standard Rectifier Module

3~ Rectifier			
V _{RRM} =	800 V		
I _{DAV} =	70 A		
I _{FSM} =	300 A		

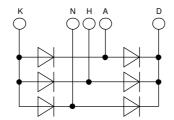
3~ Rectifier Bridge

Part number

VUO68-08NO7







Features / Advantages:

- Package with DCB ceramic
- Improved temperature and power cycling
- Planar passivated chips
- Very low forward voltage drop
- Very low leakage current

Applications:

- Diode for main rectification
- For three phase bridge configurations
- Supplies for DC power equipment
- Input rectifiers for PWM inverter • Battery DC power supplies
- Field supply for DC motors
- Package: ECO-PAC1
- Isolation Voltage: 3000 V~ • Industry standard outline
- RoHS compliant
- Soldering pins for PCB mounting • Height: 9 mm
- Base plate: DCB ceramic
- Reduced weight
- Advanced power cycling

Disclaimer Notice

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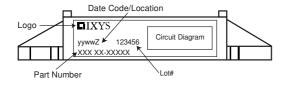


Rectifier				1	Ratings	S	
Symbol	Definition	Conditions		min.	typ.	max.	Unit
V _{RSM}	max. non-repetitive reverse bloc	cking voltage	$T_{VJ} = 25^{\circ}C$			900	V
V _{RRM}	max. repetitive reverse blocking	voltage	$T_{VJ} = 25^{\circ}C$			800	V
I _R	reverse current	$V_R = 800 \text{ V}$	$T_{VJ} = 25^{\circ}C$			40	μΑ
		$V_R = 800 \text{ V}$	$T_{VJ} = 150$ °C			1.5	mΑ
V _F	forward voltage drop	I _F = 20 A	$T_{VJ} = 25^{\circ}C$			1.15	٧
		$I_F = 60 \text{ A}$				1.50	V
		I _F = 20 A	T _{VJ} = 125°C			1.12	٧
		$I_F = 60 \text{ A}$				1.39	٧
IDAV	bridge output current	T _C = 105°C	T _{vJ} = 150°C			70	Α
		rectangular d = ⅓					i ! !
V _{F0}	threshold voltage		T _{vJ} = 150°C			0.82	V
r _F	slope resistance } for power	loss calculation only				12.2	mΩ
R _{thJC}	thermal resistance junction to ca	ase				1.1	K/W
R _{thCH}	thermal resistance case to heats	sink			0.4		K/W
P _{tot}	total power dissipation		$T_{C} = 25^{\circ}C$			110	W
I _{FSM}	max. forward surge current	t = 10 ms; (50 Hz), sine	$T_{VJ} = 45^{\circ}C$			300	Α
		t = 8,3 ms; (60 Hz), sine	$V_R = 0 V$			325	Α
		t = 10 ms; (50 Hz), sine	$T_{VJ} = 150$ °C			255	Α
		t = 8,3 ms; (60 Hz), sine	$V_R = 0 V$			275	Α
l²t	value for fusing	t = 10 ms; (50 Hz), sine	$T_{VJ} = 45^{\circ}C$			450	A ² s
		t = 8,3 ms; (60 Hz), sine	$V_R = 0 V$			440	A²s
		t = 10 ms; (50 Hz), sine	$T_{VJ} = 150$ °C			325	A ² s
		t = 8.3 ms; (60 Hz), sine	$V_R = 0 V$			315	A²s
C,	junction capacitance	$V_{R} = 400 \text{ V}; f = 1 \text{ MHz}$	$T_{VJ} = 25^{\circ}C$		10		pF





Package ECO-PAC1				Ratings			
Symbol	Definition	Conditions		min.	typ.	max.	Unit
I _{RMS}	RMS current	per terminal				100	Α
T _{VJ}	virtual junction temperature			-40		150	°C
T _{op}	operation temperature			-40		125	°C
T _{stg}	storage temperature			-40		125	°C
Weight					19		g
M _D	mounting torque			1.4		2	Nm
d _{Spp/App}	creepage distance on surface striking distance through air		terminal to terminal	6.0			mm
d _{Spb/Apb}			terminal to backside	10.0			mm
V _{ISOL}	isolation voltage	t = 1 second	50/60 Hz. BMS: IIsor ≤ 1 mA	3000			٧
.002		t = 1 minute		2500			٧



Ordering	Ordering Number	Marking on Product	Delivery Mode	Quantity	Code No.
Standard	VUO68-08NO7	VUO68-08NO7	Box	25	483303

Equivalent Circuits for Simulation			* on die level	$T_{VJ} = 150^{\circ}C$
$I \rightarrow V_0$)— <u>R</u> o	Rectifier		
V _{0 max}	threshold voltage	0.82		V
$R_{0 max}$	slope resistance *	11		mΩ



Outlines ECO-PAC1

