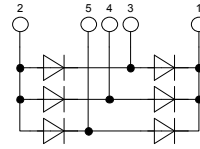


Standard Rectifier Module

3~ Bipolar Bridge

 $V_{RRM} = 1600\text{ V}$
 $I_{DAV} = 248\text{ A}$
 $V_F = 1.01\text{ V}$

Part number

VUO192-16NO7

Features / Advantages:

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

Applications:

- Diode Bridge for main rectification

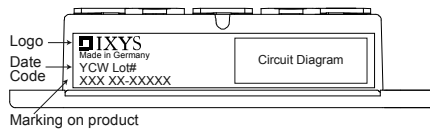
Package:

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

| 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 | |
| | | $V_R = 1600\text{ V}$ | | | 3.5 | mA | |
| V_F | forward voltage | $I_F = 80\text{ A}$ | | | 1.11 | V | |
| | | $I_F = 160\text{ A}$ | | | 1.27 | V | |
| | | $I_F = 80\text{ A}$ | $T_{VJ} = 125^\circ\text{C}$ | | | 1.01 | V |
| | | $I_F = 160\text{ A}$ | | | | 1.25 | V |
| I_{DAV} | bridge output current | 120° sine | | | 248 | A | |
| V_{FO} | threshold voltage | } for power loss calculation only | | | 0.74 | V | |
| r_F | slope resistance | | | | 3.1 | m Ω | |
| R_{thJC} | thermal resistance junction to case | | | | 0.25 | K/W | |
| T_{VJ} | virtual junction temperature | | -40 | | 150 | $^\circ\text{C}$ | |
| P_{tot} | total power dissipation | | | | 500 | W | |
| I_{FSM} | max. forward surge current | t = 10 ms; (50 Hz), sine | $T_{VJ} = 45^\circ\text{C}$ | | 3.80 | kA | |
| | | t = 8,3 ms; (60 Hz), sine | $V_R = 0\text{ V}$ | | 4.11 | kA | |
| | | t = 10 ms; (50 Hz), sine | $T_{VJ} = 150^\circ\text{C}$ | | 3.23 | kA | |
| | | t = 8,3 ms; (60 Hz), sine | $V_R = 0\text{ V}$ | | 3.49 | kA | |
| I^2t | value for fusing | t = 10 ms; (50 Hz), sine | $T_{VJ} = 45^\circ\text{C}$ | | 72.2 | kA ² s | |
| | | t = 8,3 ms; (60 Hz), sine | $V_R = 0\text{ V}$ | | 70.1 | kA ² s | |
| | | t = 10 ms; (50 Hz), sine | $T_{VJ} = 150^\circ\text{C}$ | | 52.2 | kA ² s | |
| | | t = 8,3 ms; (60 Hz), sine | $V_R = 0\text{ V}$ | | 50.7 | kA ² s | |
| C_J | junction capacitance | $V_R = 400\text{ V}; f = 1\text{ MHz}$ | $T_{VJ} = 25^\circ\text{C}$ | | 133 | 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 | VUO192-16N07 | VUO192-16N07 | Box | 5 | 509877 |

| Similar Part | Package | Voltage class |
|--------------|---------|---------------|
| VUO190-16N07 | PWS-E | 1600 |

Outlines PWS-E Flat

