



VUO 121-16NO1

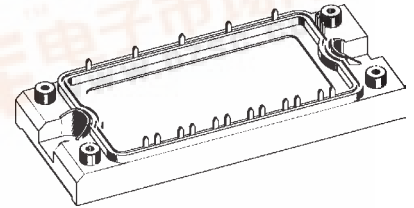
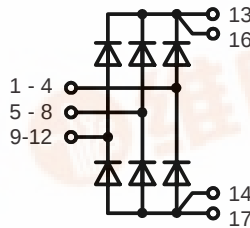
Three Phase Rectifier Bridge

$$I_{dAVM} = 118 \text{ A}$$

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

Preliminary data

V_{RRM} V	Type
1600	VUO 121-16 NO1



Symbol	Test Conditions	Maximum Ratings	
V_{RRM}		1600	V
I_{dAVM}	$T_C = 100^\circ\text{C}$, sinusoidal 120°	118	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$, $t = 10 \text{ ms}$, $V_R = 0 \text{ V}$	650	A
	$T_{VJ} = 150^\circ\text{C}$, $t = 10 \text{ ms}$, $V_R = 0 \text{ V}$	580	A
I^2t	$T_{VJ} = 45^\circ\text{C}$, $t = 10 \text{ ms}$, $V_R = 0 \text{ V}$	2110	A
	$T_{VJ} = 150^\circ\text{C}$, $t = 10 \text{ ms}$, $V_R = 0 \text{ V}$	1630	A
P_{tot}	$T_C = 25^\circ\text{C}$ per diode	120	W
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+125	°C
V_{ISOL}	50/60 Hz, $t = 1 \text{ min}$ $I_{ISOL} \leq 1 \text{ mA}$, $t = 1 \text{ s}$	2500 3000	V~ V~
M_d	Mounting torque (M5) (10-32 UNF)	4 35.4	Nm lb.in.
d_s	Creep distance on surface	6	mm
d_A	Strike distance in air	6	mm
Weight	typ.	180	g

Features

- Industry standard package with insulated copper plate and soldering pins for PCB mounting
- Isolation voltage 3000 V~
- Convenient package outline

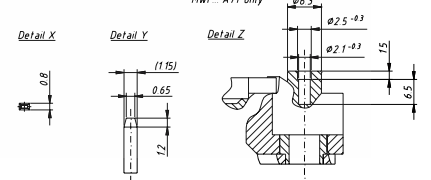
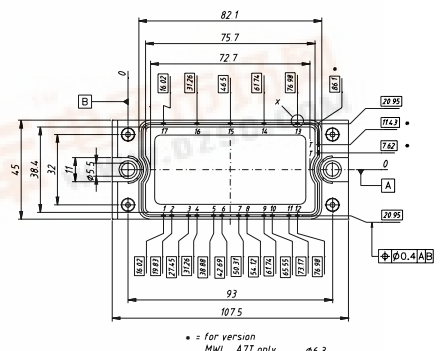
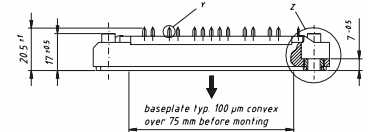
Applications

- Input Rectifier for Drive Inverters

Advantages

- Easy to mount with two screws
- Suitable for wave soldering
- High temperature and power cycling capability

Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Values		
		min.	typ.	max.
I_R	$V_R = V_{RRM1}$, $T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM1}$, $T_{VJ} = 150^\circ\text{C}$			0.1 mA 1.5 mA
V_F	$I_F = 100 \text{ A}$, $T_{VJ} = 25^\circ\text{C}$			1.55 V
V_{F0}	For power-loss calculations only			0.8 V
r_T	$T_{VJ} = 150^\circ\text{C}$			5 mΩ
R_{thJC}	per diode; sinusoidal 120°			0.8 K/W
R_{thCH}			0.1	K/W
$R_{Pin-Chip}$			2.5	mΩ