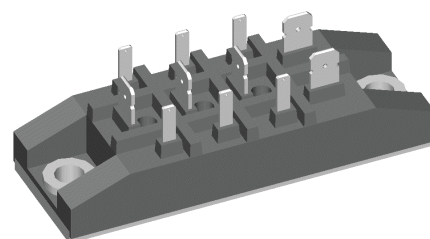
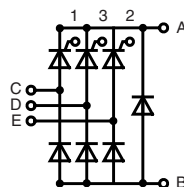


Three Phase Rectifier Bridge

$$I_{dAV} = 70 \text{ A}$$

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

V_{RSM}	V_{RRM}	Type
V_{DSM}	V_{DRM}	
V	V	
1700	1600	VVZF 70-16io7



Symbol	Conditions	Maximum Ratings	
I_{dAV} ①	$T_C = 85^\circ\text{C}$, module	70	A
I_{dAVM} ①	module	70	A
I_{FRMS}, I_{TRMS}	per leg	36	A
I_{FSM}, I_{TSM}	$T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz)	550	A
	$V_R = 0; t = 8.3 \text{ ms}$ (60 Hz)	600	A
	$T_{VJ} = T_{VJM}; t = 10 \text{ ms}$ (50 Hz)	500	A
	$V_R = 0; t = 8.3 \text{ ms}$ (60 Hz)	550	A
I^2t	$T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz)	1520	A ² s
	$V_R = 0; t = 8.3 \text{ ms}$ (60 Hz)	1520	A ² s
	$T_{VJ} = T_{VJM}; t = 10 \text{ ms}$ (50 Hz)	1250	A ² s
	$V_R = 0; t = 8.3 \text{ ms}$ (60 Hz)	1250	A ² s
$(di/dt)_{cr}$	$T_{VJ} = 125^\circ\text{C}$ repetitive; $I_T = 50 \text{ A}$ $f = 50 \text{ Hz}; t_p = 200 \mu\text{s}$	150	A/ μs
	$V_D = \frac{2}{3} V_{DRM}$ non repetitive; $I_G = 0.3 \text{ A}$ $I_T = \frac{1}{2} I_{dAV}$ $di_G/dt = 0.3 \text{ A}/\mu\text{s}$	500	A/ μs
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}; V_D = \frac{2}{3} V_{DRM}$ $R_{GK} = \infty$, method 1 (linear voltage rise)	1000	V/ μs
V_{RGM}		10	V
P_{GM}	$T_{VJ} = T_{VJM}$ $t_p = 30 \mu\text{s}$	10	W
	$I_T = I_{TAVM}$ $t_p = 500 \mu\text{s}$	5	W
	$t_p = 10 \mu\text{s}$	1	W
P_{GAVM}		0.5	W
T_{VJ}		-40...+125	$^\circ\text{C}$
T_{VJM}		125	$^\circ\text{C}$
T_{stg}		-40...+125	$^\circ\text{C}$
V_{ISOL}	50/60 Hz, RMS $t = 1 \text{ min}$	2500	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000	V~
M_d	Mounting torque (M5)	5 $\pm$ 15%	Nm
	(10-32 UNF)	44 $\pm$ 15%	lb.in.
Weight	Typ.	100	g

Features

- Package with copper base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- 1/4" fast-on power terminals

Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with two screw
- Space and weight savings
- Improved temperature & power cycling capability
- Small and light weight

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

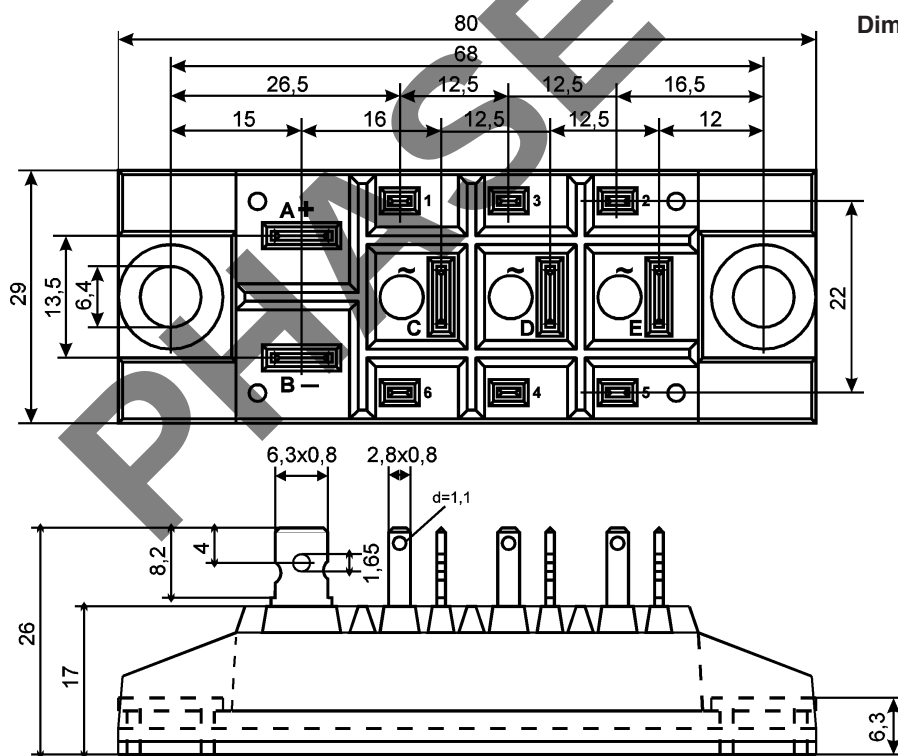
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IXYS reserves the right to change limits, test conditions and dimensions.

20200117c

Symbol	Conditions	Characteristic Values		
$I_D; I_R$	$V_R = V_{RRM}; V_D = V_{DRM}$	$T_{VJ} = T_{VJM}$	$\leq$	5 mA
V_T	$I_T = 80$ A	$T_{VJ} = 25^\circ\text{C}$	$\leq$	1.64 V
V_{T0}	For power-loss calculations only			0.85 V
r_t				11 m Ω
V_{GT}	$V_D = 6$ V	$T_{VJ} = 25^\circ\text{C}$	$\leq$	1.5 V
		$T_{VJ} = -40^\circ\text{C}$	$\leq$	1.6 V
I_{GT}	$V_D = 6$ V	$T_{VJ} = 25^\circ\text{C}$	$\leq$	100 mA
		$T_{VJ} = -40^\circ\text{C}$	$\leq$	200 mA
V_{GD}	$V_D = \frac{2}{3}V_{DRM}$	$T_{VJ} = T_{VJM}$	$\leq$	0.2 V
I_{GD}			$\leq$	5 mA
I_L	$t_p = 10$ μs $I_G = 0.45$ A; $di_G/dt = 0.45$ A/ μs	$T_{VJ} = 25^\circ\text{C}$	$\leq$	450 mA
I_H	$V_D = 6$ V; $R_{GK} = \infty$	$T_{VJ} = 25^\circ\text{C}$	$\leq$	200 mA
t_{gd}	$V_D = \frac{1}{2}V_{DRM}$ $I_G = 0.45$ A; $di_G/dt = 0.45$ A/ μs	$T_{VJ} = 25^\circ\text{C}$	$\leq$	2 μs
t_q	$I_T = 20$ A; $t_p = 200$ μs $V_R = 100$ V; $di/dt = -10$ A/ μs $dv/dt = -15$ V/ μs ; $V_D = \frac{2}{3}V_{DRM}$	$T_{VJ} = 25^\circ\text{C}$	$\leq$	250 μs
R_{thJC}	per thyristor / diode; DC			0.9 K/W
	per module			0.15 K/W
R_{thJH}	per thyristor / diode; DC			1.1 K/W
	per module			0.157 K/W
d_s	Creeping distance on surface			16.1 mm
d_A	Creepage distance in air			7.5 mm
a	Max. allowable acceleration			50 m/s ²



Dimensions in mm (1 mm = 0.0394")

