

Thyristor Modules

Thyristor/Diode Modules

$$I_{TRMS} = 2 \times 180 \text{ A}$$

$$I_{TAVM} = 2 \times 116 \text{ A}$$

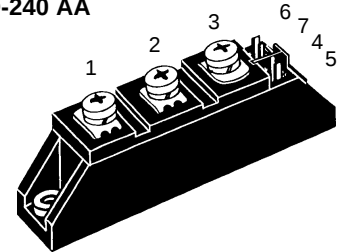
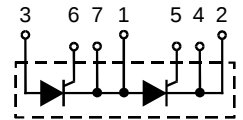
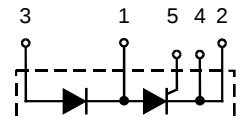
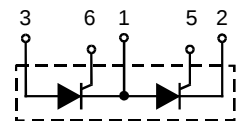
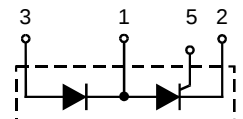
$$V_{RRM} = 800-1800 \text{ V}$$

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type			
		Version 1		Version 8	
900	800	MCC 95-08io1 B	--	MCC 95-08io8 B	MCD 95-08io8 B
1300	1200	MCC 95-12io1 B	MCD 95-12io1 B	MCC 95-12io8 B	MCD 95-12io8 B
1500	1400	MCC 95-14io1 B	--	MCC 95-14io8 B	MCD 95-14io8 B
1700	1600	MCC 95-16io1 B	MCD 95-16io1 B	MCC 95-16io8 B	MCD 95-16io8 B
1900	1800	MCC 95-18io1 B	--	MCC 95-18io8 B	MCD 95-18io8 B
1500	1400	MCC 95-16io1			
1700	1600	MCC 95-18io1			

Symbol	Test Conditions		Maximum Ratings	
I_{TRMS}^1 I_{FRMS}	$T_{VJ} = T_{VJM}$		180	A
I_{TAVM}^1 I_{FAVM}	$T_C = 85^\circ\text{C}; 180^\circ \text{ sine}$		116	A
I_{TSM}^1 I_{FSM}	$T_{VJ} = 45^\circ\text{C};$ $V_R = 0$	$t = 10 \text{ ms (50 Hz), sine}$	2250	A
		$t = 8.3 \text{ ms (60 Hz), sine}$	2400	A
$\int i^2 dt$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms (50 Hz), sine}$	25 300	A ² s
		$t = 8.3 \text{ ms (60 Hz), sine}$	23 900	A ² s
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$ $f = 50 \text{ Hz}, t_p = 200 \mu\text{s}$ $V_D = 2/3 V_{DRM}$ $I_G = 0.45 \text{ A}$ $di_G/dt = 0.45 \text{ A}/\mu\text{s}$	$t = 10 \text{ ms (50 Hz), sine}$	20 000	A ² s
		$t = 8.3 \text{ ms (60 Hz), sine}$	19 100	A ² s
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM};$ $R_{GK} = \infty; \text{method 1 (linear voltage rise)}$	$V_{DR} = 2/3 V_{DRM}$	1000	V/ μs
P_{GM}	$T_{VJ} = T_{VJM}$	$t_p = 30 \mu\text{s}$	10	W
	$I_T = I_{TAVM}$	$t_p = 300 \mu\text{s}$	5	W
P_{GAV}			0.5	W
V_{RGM}			10	V
T_{VJ}			-40...+125	°C
T_{VJM}			125	°C
T_{stg}			-40...+125	°C
V_{ISOL}	50/60 Hz, RMS	$t = 1 \text{ min}$	3000	V~
	$I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ s}$	3600	V~
M_d	Mounting torque (M5)		2.5-4.0/22-35	Nm/lb.in.
	Terminal connection torque (M5)		2.5-4.0/22-35	Nm/lb.in.
Weight	Typical including screws		90	g

Data according to IEC 60747 and refer to a single thyristor/diode unless otherwise stated.
IXYS reserves the right to change limits, test conditions and dimensions

TO-240 AA


MCC
Version 1

MCD
Version 1

MCC
Version 8

MCD
Version 8


Features

- International standard package, JEDEC TO-240 AA
- Direct copper bonded Al_2O_3 -ceramic base plate
- Planar passivated chips
- Isolation voltage 3600 V~
- UL registered, E 72873
- Gate-cathode twin pins for version 1

Applications

- DC motor control
- Softstart AC motor controller
- Light, heat and temperature control

Advantages

- Space and weight savings
- Simple mounting with two screws
- Improved temperature and power cycling
- Reduced protection circuits