

Thyristor Modules Thyristor/Diode Modules

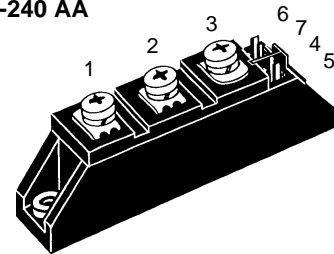
$$I_{TRMS} = 2x 180 A$$

$$I_{TAVM} = 2x 116 A$$

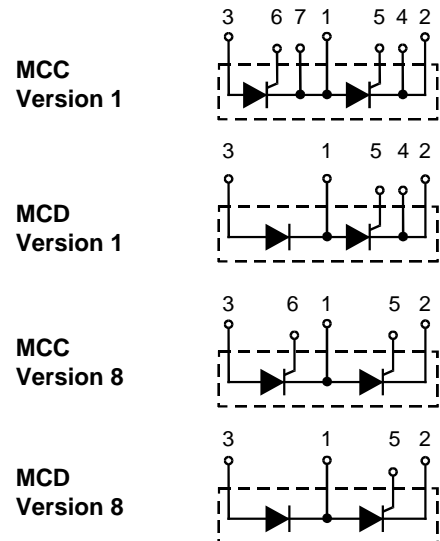
$$V_{RRM} = 800-1800 V$$

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
1300	1200	MCC 95-12io1 B	MCD 95-12io1 B	MCC 95-12io8 B
1500	1400	MCC 95-14io1 B	--	MCC 95-14io8 B
1700	1600	MCC 95-16io1 B	MCD 95-16io1 B	MCC 95-16io8 B
1900	1800	MCC 95-18io1 B	--	MCC 95-18io8 B
1500	1400	MCC 95-16io1		
1700	1600	MCC 95-18io1		

TO-240 AA



Symbol	Test Conditions	Maximum Ratings
I_{TRMS}^1 , I_{FRMS} I_{TAVM}^2 , I_{FAVM}	$T_{VJ} = T_{VJM}$ $T_C = 85^\circ C$; 180° sine	180 A 116 A
I_{TSM}^3 , I_{FSM}	$T_{VJ} = 45^\circ C$; $V_R = 0$	t = 10 ms (50 Hz), sine: 2250 A t = 8.3 ms (60 Hz), sine: 2400 A
$\int j^2 dt$	$T_{VJ} = 45^\circ C$ $V_R = 0$	t = 10 ms (50 Hz), sine: 25 300 A ² s t = 8.3 ms (60 Hz), sine: 23 900 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine: 20 000 A ² s t = 8.3 ms (60 Hz), sine: 19 100 A ² s
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$ f = 50 Hz, t _p = 200 μs $V_D = 2/3 V_{DRM}$ $I_G = 0.45 A$ dI _G /dt = 0.45 A/μs	repetitive, I _T = 250 A: 150 A/μs non repetitive, I _T = I _{TAVM} : 500 A/μs
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$; $R_{GK} = \infty$; method 1 (linear voltage rise)	$V_{DR} = 2/3 V_{DRM}$: 1000 V/μs
P_{GM}	$T_{VJ} = T_{VJM}$	t _p = 30 μs: 10 W
	$I_T = I_{TAVM}$	t _p = 300 μs: 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 min: 3000 V~
	$I_{ISOL} \leq 1 mA$	t = 1 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



Features

- International standard package, JEDEC TO-240 AA
- Direct copper bonded Al₂O₃ -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

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