Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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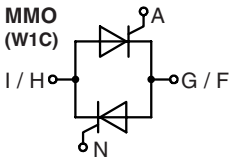
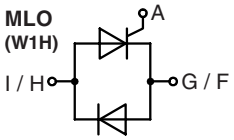
AC Controller Modules

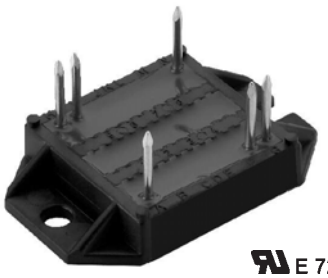
I_{RMS} = 112 A
V_{RRM} = 800-1400 V

Preliminary Data

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type	
800	800	MMO 110-08io7	MLO 110-08io7
1200	1200	MMO 110-12io7	MLO 110-12io7
1400	1400	MMO 110-14io7	MLO 110-14io7







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Symbol	Conditions		Maximum Ratings	
I_{RMS}	T_C = 85°C, 50 - 400 Hz, module		112	A
I_{TRMS}			81	A
I_{TAVM}	T_C = 85°C; (180° sine)		51	A
I_{TSM}	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	1000	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	1070	A
	T_{VJ} = 125°C	t = 10 ms (50 Hz), sine	870	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	930	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	5000	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	4810	A^2s
	T_{VJ} = 125°C	t = 10 ms (50 Hz), sine	3780	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	3630	A^2s
$(di/dt)_{cr}$	T_{VJ} = 125°C f = 50 Hz, t_P = 200 µs	repetitive, I_T = 50 A	100	A/µs
	V_D = $^2/_3$ V_{DRM} I_G = 0.45 A di_G/dt = 0.45 A/µs	non repetitive, I_T = I_{TAVM}	500	A/µs
$(dv/dt)_{cr}$	T_{VJ} = 125°C; V_{DR} = $^2/_3$ V_{DRM} R_{GK} = ∞; method 1 (linear voltage rise)		1000	V/µs
P_{GM}	T_{VJ} = 125°C	t_p = 30 µs	10	W
	I_T = I_{TAVM}	t_p = 300 µs	5	W
P_{GAVM}			0.5	W
V_{RGM}			10	V
T_{VJ}			-40...+150	°C
T_{VJM}			150	°C
T_{stg}			-40...+125	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min	2500	V~
	I_{ISOL} ≤ 1 mA	t = 1 s	3000	V~
M_d	Mounting torque (M4)		1.5...2.0/14...18	Nm/lb.in.
Weight	typ.		18	g

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

Features

- Thyristor controller for AC (circuit W1C acc. to IEC) for mains frequency
- Isolation voltage 3000 V~
- Planar glass passivated chips
- Low forward voltage drop
- Lead suitable for PC board solering

Applications

- Switching and control of single and three phase AC circuits
- Light and temperature control
- Softstart AC motor controller
- Solid state switches

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling
- High power density
- Small and light weight

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IXYS reserve the right to change limits, conditions and dimensions.

Symbol	Conditions		Characteristic Values		
I_D, I_R	T_{VJ} = 125°C; $V_R = V_{RRM}$; $V_D = V_{DRM}$		≤	5	mA
V_T	I_T = 150 A; T_{VJ} = 25°C		≤	1.57	V
V_{T0}	For power-loss calculations only			0.85	V
r_T				5.6	mΩ
V_{GT}	V_D = 6 V	T_{VJ} = 25°C	≤	1.5	V
		T_{VJ} = -40°C	≤	1.9	V
I_{GT}	V_D = 6 V	T_{VJ} = 25°C	≤	100	mA
		T_{VJ} = -40°C	≤	200	mA
V_{GD}	T_{VJ} = 125°C; $V_D = {}^2/_3\ V_{DRM}$		≤	0.2	V
I_{GD}			≤	1	mA
I_L	T_{VJ} = 25°C; t_P = 10 µs I_G = 0.45 A; di_G/dt = 0.45 A/µs		≤	200	mA
I_H	T_{VJ} = 25°C; V_D = 6 V; R_{GK} = ∞		≤	100	mA
t_{gd}	T_{VJ} = 25°C; V_D = ½ V_{DRM} I_G = 0.45 A; di_G/dt = 0.45 A/µs		≤	2	µs
R_{thJC}	per thyristor; DC			0.8	K/W
	per module			0.4	K/W
R_{thCH}	per thyristor; sine 180° el		typ.	0.12	K/W
	per module		typ.	0.06	K/W
d_S	Creeping distance on surface			11.2	mm
d_A	Creepage distance in air			17.0	mm
a	Max. allowable acceleration			50	m/s^2

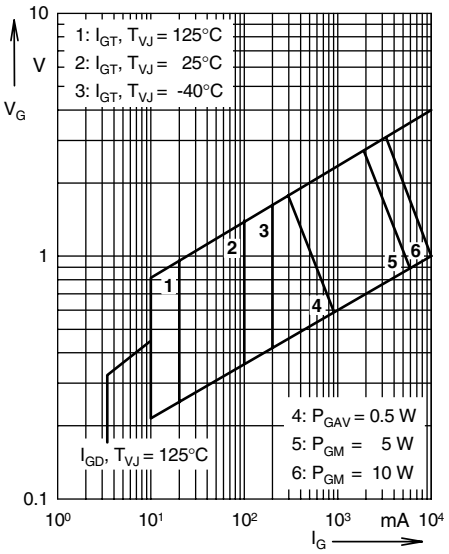


Fig. 1 Gate trigger characteristics

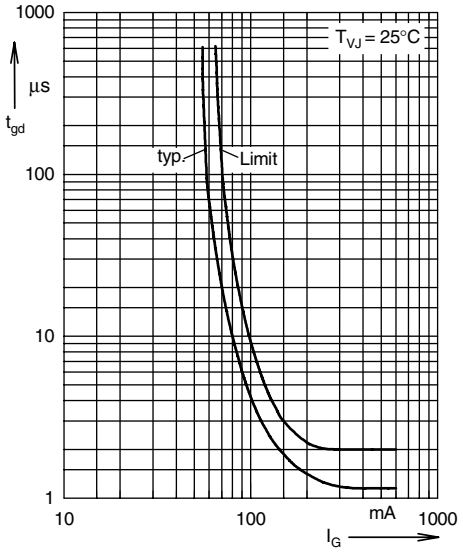
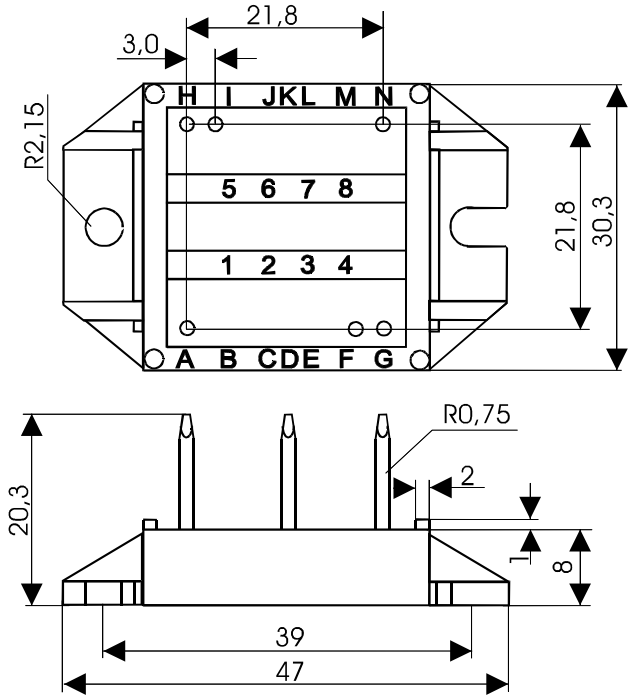


Fig. 2 Gate trigger delay time

Dimensions in mm (1 mm = 0.0394")



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