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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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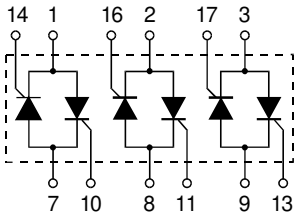
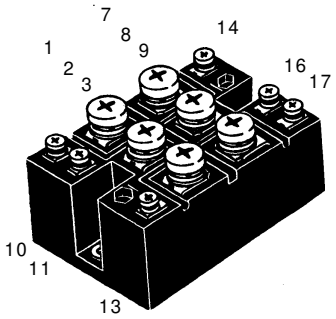
Three Phase AC Controller Modules

I_{RMS} = 40 A
V_{RRM} = 800-1600 V

Preliminary data

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type
800	800	VWO 40-08io7
1200	1200	VWO 40-12io7
1400	1400	VWO 40-14io7
1600	1600	VWO 40-16io7





Symbol	Test Conditions		Maximum Ratings	
I_{RMS}	T_C = 85°C, 50 - 400 Hz (per phase)		40	A
I_{TRMS}	$T_{VJ} = T_{VJM}$		29	A
I_{TAVM}	T_C = 85°C; (180° sine)		18	A
I_{TSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	400	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	450	A
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	360	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	390	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	800	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	850	A^2s
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	650	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	640	A^2s
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$; f =50 Hz, t_P =200 µs; V_D = 2/3 V_{DRM}; I_G = 0.3 A; di_G/dt = 0.3 A/µs	repetitive, I_T = 150 A	100	A/µs
		non repetitive, $I_T = I_{TAVM}$	500	A/µs
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$; R_{GK} = ∞; 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_{GAVM}			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	2500	V~
	$I_{ISOL} \leq$ 1 mA	t = 1 s	3000	V~
M_d	Mounting torque (M5)		5/44±15 %	Nm/lb.in.
	Terminal connection torque (M3; M5)		1.5/13±15 %	Nm/lb.in.
Weight	typ.		180	g

Features
- Thyristor controller for AC (circuit W3C acc. to IEC) for mains frequency
- Package with metal base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- UL applied

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

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

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

Symbol	Test Conditions		Characteristic Values		
I_D, I_R	$T_{VJ} = T_{VJM}$; $V_R = V_{RRM}$; $V_D = V_{DRM}$		≤	5	mA
V_T	I_T = 80 A; T_{VJ} = 25°C		≤	1.65	V
V_{T0}	For power-loss calculations only			0.85	V
r_T				15	mΩ
V_{GT}	V_D = 6 V;	T_{VJ} = 25°C	≤	1.0	V
		T_{VJ} = -40°C	≤	1.6	V
I_{GT}	V_D = 6 V;	T_{VJ} = 25°C	≤	100	mA
		T_{VJ} = -40°C	≤	150	mA
V_{GD}	$T_{VJ} = T_{VJM}$;	V_D = 2/3 V_{DRM}	≤	0.2	V
I_{GD}			≤	5	mA
I_L	T_{VJ} = 25°C; t_P = 10 µs I_G = 0.3 A; di_G/dt = 0.3 A/µs		≤	200	mA
I_H	T_{VJ} = 25°C; V_D = 6 V; R_{GK} = ∞		≤	150	mA
t_{gd}	T_{VJ} = 25°C; V_D = 1/2 V_{DRM} I_G = 0.3 A; di_G/dt = 0.3 A/µs		≤	2	µs
t_q	$T_{VJ} = T_{VJM}$; I_T = 20 A, t_P = 200 µs; di/dt = -10 A/µs V_R = 100 V; dv/dt = 15 V/µs; V_D = 2/3 V_{DRM}		typ.	150	µs
R_{thJC}	per thyristor; sine 180°el			1.43	K/W
	per module			0.238	K/W
R_{thJK}	per thyristor; sine 180°el			1.53	K/W
	per module			0.255	K/W
d_S	Creeping distance on surface			8.0	mm
d_A	Creepage distance in air			4.5	mm
a	Max. allowable acceleration			50	m/s^2

Dimensions in mm (1 mm = 0.0394")