



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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Thyristor Modules

ECO-PAC 2

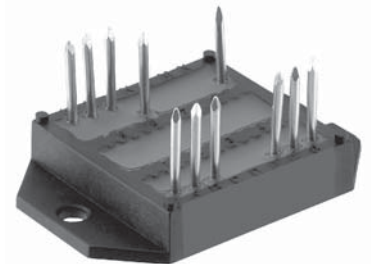
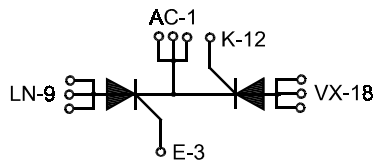
$$I_{TRMS} = 2 \times 180A$$

$$I_{TAVM} = 2 \times 105A$$

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

Preliminary Data

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Typ
900	800	VCK 105 - 08io7
1300	1200	VCK 105 - 12io7
1500	1400	VCK 105 - 14io7
1700	1600	VCK 105 - 16io7
1900	1800	VCK 105 - 18io7



Symbol	Conditions	Maximum Ratings
I_{TRMS}		180 A
I_{TAVM}	$T_C = 85^\circ C$; 180° sine	105 A
I_{TSM}	$T_{VJ} = 45^\circ C$; $V_R = 0 V$; $t = 10 ms$ (50 Hz), sine	2250 A
	$t = 8.3 ms$ (60 Hz), sine	2400 A
I^2dt	$T_{VJ} = 45^\circ C$; $V_R = 0 V$; $t = 10 ms$ (50 Hz), sine	25300 A ² s
	$t = 8.3 ms$ (60 Hz), sine	23900 A ² s
I^2dt	$T_{VJ} = 125^\circ C$; $V_R = 0 V$; $t = 10 ms$ (50 Hz), sine	2000 A ² s
	$t = 8.3 ms$ (60 Hz), sine	2150 A ² s
$(di/dt)_{cr}$	$T_{VJ} = 125^\circ C$; $f = 50 Hz$; $t_p = 200 \mu s$; $V_D = \frac{2}{3} V_{DRM}$; $I_G = 0.45 A$; $di_G/dt = 0.45 A/\mu s$; repetitive, $I_T = 250 A$	150 A/ μs
	non repetitive, $I_T = I_{TAVM}$	500 A/ μs
$(dv/dt)_{cr}$	$T_{VJ} = 125^\circ C$; $V_{DR} = \frac{2}{3} V_{DRM}$; $R_{GK} = \infty$, method 1 (linear voltage rise)	1000 V/ μs
P_{GM}	$T_{VJ} = 125^\circ C$; $t_p = 30 ms$	$\leq 10 W$
	$I_T = I_{TAVM}$; $t_p = 300 ms$	$\leq 5 W$
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; $t = 1 min$	3000 V ~
	$I_{ISOL} \leq 1 mA$; $t = 1 s$	3600 V ~
M_d	Mounting torque (M4)	1.5 - 2.0 Nm
		14 - 18 lb.in.
Weight	typ.	26 g

Features

- Isolation voltage 3600 V~
- Planar glass passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

Applications

- DC motor control
- 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

Data according to IEC 60747 refer to a single thyristor unless otherwise stated

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

Component		Characteristic Values		
Symbol	Conditions	min.	typ.	max.
I_D, I_R	$T_{VJ} = 125^\circ\text{C}; V_R = V_{RRM}; V_D = V_{DRM}$			5 mA
V_T	$I_T = 300 \text{ A}; T_{VJ} = 25^\circ\text{C}$			1.5 V
V_{TO}	For power-loss calculations only			0.8 V
r_T				2.4 mΩ
V_{GT}	$V_D = 6 \text{ V}; T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = -40^\circ\text{C}$			1.5 V 1.6 V
I_{GT}	$V_D = 6 \text{ V}; T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = -40^\circ\text{C}$			150 mA 200 mA
V_{GD}	$T_{VJ} = 125^\circ\text{C}; V_D = \frac{2}{3}V_{DRM}$			0.2 V
I_{GD}	$T_{VJ} = 125^\circ\text{C}; V_D = \frac{2}{3}V_{DRM}$			10 mA
I_L	$T_{VJ} = 25^\circ\text{C}; t_p = 10 \text{ ms}$ $I_G = 0.45 \text{ A}; di_G/dt = 0.45 \text{ A}/\mu\text{s}$			450 mA
I_H	$T_{VJ} = 25^\circ\text{C}; V_D = 6 \text{ V}; R_{GK} = \infty$			200 mA
t_{gd}	$T_{VJ} = 25^\circ\text{C}; V_D = \frac{1}{2} V_{DRM}$ $I_G = 0.45 \text{ A}; di_G/dt = 0.45 \text{ A}/\mu\text{s}$			2 μs
R_{thJC}	per Thyristor; DC per module			0.26 K/W 0.13 K/W
R_{thCH}	per Thyristor; DC per module		0,2 0,1	K/W K/W
d_S	Creeping distance on surface			11.2 mm
d_A	Creeping distance in air			5.0 mm
a	Max. allowable acceleration			50 m/s ²

