

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!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





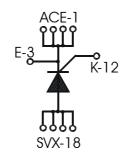


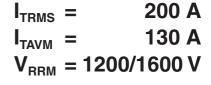


# **Thyristor Modules**

## ECO-PAC 2

V <sub>RSM</sub>	V <sub>RRM</sub>			
$\mathbf{V}_{\mathrm{DSM}}$	$oldsymbol{V}_{ extsf{DRM}}$	Тур		
1300 1700	1200 1600	VCO 132-12io7 VCO 132-16io7		







Symbol	Conditions	Maximum Ratings		
I <sub>TRMS</sub>		200	Α	
I <sub>TAVM</sub>	$T_C = 85^{\circ}C; T_{VJ} = 130^{\circ}C; 180^{\circ} \text{ sine}$	130	A	
I <sub>TSM</sub>	$T_{VJ} = 45^{\circ}C;$ $t = 10 \text{ ms}$ (50 Hz)	3600	Α	
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	3850	A	
	$T_{VJ} = 125^{\circ}C; t = 10 \text{ ms}$ (50 Hz)	3200	Α	
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	3420	A	
l²t	$T_{VJ} = 45^{\circ}C;$ $t = 10 \text{ ms}$ (50 Hz)	64 800	$A^2s$	
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	62 300	A <sup>2</sup> s	
	$T_{VJ} = 125^{\circ}C; t = 10 \text{ ms}$ (50 Hz)	51 200	$A^2s$	
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	49 100	A <sup>2</sup> s	
(di/dt) <sub>cr</sub>	$T_{VJ}$ = 125°C; repetitive, $I_T$ = 250 A f = 50 Hz; $t_p$ = 200 µs;	150	A/µs	
	$\begin{aligned} V_D &= {}^2\!/_3  V_{DRM}; \\ I_G &= 0.5 \; A; \\ di_G / dt &= 0.5 \; A/\mu s \end{aligned} \qquad \text{non repetitive, } I_T = I_{TAVM}$	500	A/µs	
(dv/dt) <sub>cr</sub>	$T_{VJ} = 125$ °C; $V_D = {}^2\!/_3 V_{DRM}$ ; $R_{GK} = \infty$ ; method 1 (linear voltage rise)	1000	V/µs	
P <sub>GM</sub>	$T_{vJ} = 125^{\circ}C;$ $t_{p} = 30 \text{ ms}$	≤ 10	W	
	$I_T = I_{T(AV)M};$ $t_p = 300 \text{ ms}$	≤ 5	W	
P <sub>GAVM</sub>		0.5	W	
$V_{RGM}$		10	V	
T <sub>VJ</sub>		-40+130	°C	
$T_{VJM}$		150	°C	
T <sub>stg</sub>		-40+125	°C	
$V_{ISOL}$	50/60 Hz, RMS $t = 1 \text{ min}$	3000	٧~	
	$I_{ISOL} \le 1 \text{ mA}$ $t = 1 \text{ s}$	3600	V~	
$M_d$	Mounting torque (M4)	1.5 - 2.0	Nm	
		14 - 18	lb.in.	
Weight	Typical including screws	24	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 and refer to a single diode unless otherwise stated.



Symbol	Conditions	<b>Characteristic Values</b>			
			typ.	max.	
I <sub>D</sub> , I <sub>R</sub>	$V_R/V_D = V_{RRM}/V_{DRM}$	$T_{VJ} = 125^{\circ}C$		10	mA
$V_{T}$	$I_{T} = 200 \text{ A}$	$T_{VJ} = 25^{\circ}C$		1.3	V
$\mathbf{V}_{TO}$ $\mathbf{r}_{t}$	For power-loss calculations only			0.80 1.65	V mΩ
V <sub>GT</sub>	$V_D = 6 V$	$T_{VJ} = 25^{\circ}C$ $T_{VJ} = -40^{\circ}C$		1.5 1.6	V
I <sub>GT</sub>	$V_D = 6 V$	$T_{VJ} = 25^{\circ}C$ $T_{VJ} = -40^{\circ}C$		300 400	mA mA
$V_{GD}$	$V_D = {}^2/_3 V_{DRM};$	$T_{VJ} = 125^{\circ}C$		0.2 10	V mA
I <sub>L</sub>	$t_p = 10 \ \mu s;$ $I_G = 0.5 \ A; \ di_G / dt = 0.5 \ A / \mu s$	$T_{VJ} = 25^{\circ}C$		450	mA
I <sub>H</sub>	$V_D = 6 \text{ V}; R_{GK} = \infty;$	$T_{VJ} = 25^{\circ}C$		200	mA
t <sub>gd</sub>	$V_D = \frac{1}{2}V_{DRM}$ $I_G = 0.5 \text{ A}; di_G/dt = 0.5 \text{ A}/\mu\text{s}$	$T_{VJ} = 25^{\circ}C$		2	μs
$R_{thJC}$ $R_{thJH}$	per thyristor; DC current		0.35	0.25	K/W K/W
d <sub>s</sub> d <sub>A</sub> a	Creeping distance on surface Creepage distance in air Maximum allowable acceleration			11.2 5.0 50	mm mm m/s²

### **Dimensions in mm (1 mm = 0.0394")**

