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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

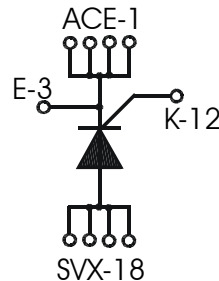
## ECO-PAC 2

$$I_{TRMS} = 280 \text{ A}$$

$$I_{TAVM} = 180 \text{ A}$$

$$V_{RRM} = 1200/1600 \text{ V}$$

$V_{RSM}$	$V_{RRM}$	Typ
$V_{DSM}$ V	$V_{DRM}$ V	
1300	1200	VCO 180 - 12io7
1700	1600	VCO 180 - 16io7



Symbol	Conditions	Maximum Ratings	
$I_{TRMS}$		280	A
$I_{TAVM}$	$T_C = 90^\circ\text{C}; T_{VJ} = 130^\circ\text{C}; 180^\circ \text{ sine}$	180	A
$I_{TSM}$	$T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms (50 Hz)}$	4500	A
	$V_R = 0; t = 8.3 \text{ ms (60 Hz)}$	4900	A
	$T_{VJ} = 125^\circ\text{C}; t = 10 \text{ ms (50 Hz)}$	3800	A
	$V_R = 0; t = 8.3 \text{ ms (60 Hz)}$	4200	A
$I^2t$	$T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms (50 Hz)}$	101 000	A <sup>2</sup> s
	$V_R = 0; t = 8.3 \text{ ms (60 Hz)}$	99 500	A <sup>2</sup> s
	$T_{VJ} = 125^\circ\text{C}; t = 10 \text{ ms (50 Hz)}$	72 000	A <sup>2</sup> s
	$V_R = 0; t = 8.3 \text{ ms (60 Hz)}$	73 000	A <sup>2</sup> s
$(di/dt)_{cr}$	$T_{VJ} = 125^\circ\text{C};$ repetitive, $I_T = 250 \text{ A}$ $f = 50 \text{ Hz}; t_p = 200 \mu\text{s};$	150	A/ $\mu\text{s}$
	$V_D = \frac{2}{3} V_{DRM};$ non repetitive, $I_T = I_{TAVM}$ $I_G = 0.5 \text{ A};$ $di_G/dt = 0.5 \text{ A}/\mu\text{s}$	500	A/ $\mu\text{s}$
$(dv/dt)_{cr}$	$T_{VJ} = 125^\circ\text{C}; V_D = \frac{2}{3} V_{DRM};$ $R_{GK} = \infty;$ method 1 (linear voltage rise)	1000	V/ $\mu\text{s}$
$P_{GM}$	$T_{VJ} = 125^\circ\text{C};$ $t_p = 30 \text{ ms}$	$\leq 10$	W
	$I_T = I_{T(AV)M};$ $t_p = 300 \text{ ms}$	$\leq 5$	W
$P_{GAVM}$		0.5	W
$V_{RGM}$		10	V
$T_{VJ}$		-40...+130	°C
$T_{VJM}$		150	°C
$T_{stg}$		-40...+125	°C
$V_{ISOL}$	50/60 Hz, RMS $t = 1 \text{ min}$	3000	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	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.

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

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Symbol	Conditions	Characteristic Values	
		typ.	max.
$I_D, I_R$	$V_R / V_D = V_{RRM} / V_{DRM}$	$T_{VJ} = 125^\circ\text{C}$	10 mA
$V_T$	$I_T = 200\text{ A}$	$T_{VJ} = 25^\circ\text{C}$	1.1 V
$V_{T0}$	For power-loss calculations only		0.75 V
$r_t$			1.23 mΩ
$V_{GT}$	$V_D = 6\text{ V}$	$T_{VJ} = 25^\circ\text{C}$	1.5 V
		$T_{VJ} = -40^\circ\text{C}$	1.6 V
$I_{GT}$	$V_D = 6\text{ V}$	$T_{VJ} = 25^\circ\text{C}$	300 mA
		$T_{VJ} = -40^\circ\text{C}$	400 mA
$V_{GD}$	$V_D = \frac{2}{3} V_{DRM}$	$T_{VJ} = 125^\circ\text{C}$	0.2 V
$I_{GD}$			10 mA
$I_L$	$t_p = 10\ \mu\text{s};$ $I_G = 0.5\text{ A}; di_G/dt = 0.5\text{ A}/\mu\text{s}$	$T_{VJ} = 25^\circ\text{C}$	450 mA
$I_H$	$V_D = 6\text{ V}; R_{GK} = \infty;$	$T_{VJ} = 25^\circ\text{C}$	200 mA
$t_{gd}$	$V_D = \frac{1}{2} V_{DRM}$ $I_G = 0.5\text{ A}; di_G/dt = 0.5\text{ A}/\mu\text{s}$	$T_{VJ} = 25^\circ\text{C}$	2 μs
$R_{thJC}$	per thyristor; DC current		0.17 K/W
$R_{thJH}$		0.23	K/W
$d_s$	Creeping distance on surface		11.2 mm
$d_A$	Creepage distance in air		5.0 mm
$a$	Maximum allowable acceleration		50 m/s <sup>2</sup>

Dimensions in mm (1 mm = 0.0394")

