

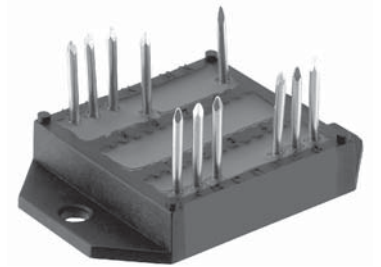
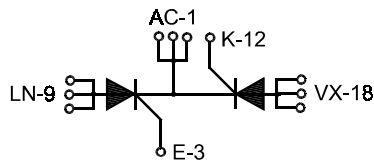
Thyristor Modules

ECO-PAC 2

$$\begin{aligned} I_{\text{TRMS}} &= 2 \times 180 \text{ A} \\ I_{\text{TAVM}} &= 2 \times 105 \text{ A} \\ V_{\text{RRM}} &= 800 - 1800 \text{ V} \end{aligned}$$

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}	$T_{\text{C}} = 85^{\circ}\text{C}$; 180° sine	105	A
I_{TSM}	$T_{\text{VJ}} = 45^{\circ}\text{C}$; $V_{\text{R}} = 0 \text{ V}$; $t = 10 \text{ ms}$ (50 Hz), sine	2250	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	2400	A
	$T_{\text{VJ}} = 125^{\circ}\text{C}$; $V_{\text{R}} = 0 \text{ V}$; $t = 10 \text{ ms}$ (50 Hz), sine	2000	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	2150	A
$I^2\text{dt}$	$T_{\text{VJ}} = 45^{\circ}\text{C}$; $V_{\text{R}} = 0 \text{ V}$; $t = 10 \text{ ms}$ (50 Hz), sine	25300	A^2s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	23900	A^2s
	$T_{\text{VJ}} = 125^{\circ}\text{C}$; $V_{\text{R}} = 0 \text{ V}$; $t = 10 \text{ ms}$ (50 Hz), sine	20000	A^2s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	19100	A^2s
$(di/dt)_{\text{cr}}$	$T_{\text{VJ}} = 125^{\circ}\text{C}$; $f = 50 \text{ Hz}$; $t_{\text{p}} = 200 \mu\text{s}$; $V_{\text{D}} = 2/3 V_{\text{DRM}}$; $I_{\text{G}} = 0.45 \text{ A}$; $di_{\text{G}}/dt = 0.45 \text{ A}/\mu\text{s}$;	repetitive, $I_{\text{T}} = 250 \text{ A}$	150 $\text{A}/\mu\text{s}$
		non repetitive, $I_{\text{T}} = I_{\text{TAVM}}$	500 $\text{A}/\mu\text{s}$
$(dv/dt)_{\text{cr}}$	$T_{\text{VJ}} = 125^{\circ}\text{C}$; $V_{\text{DR}} = 2/3 V_{\text{DRM}}$; $R_{\text{GK}} = \infty$, method 1 (linear voltage rise)		1000 $\text{V}/\mu\text{s}$
P_{GM}	$T_{\text{VJ}} = 125^{\circ}\text{C}$; $I_{\text{T}} = I_{\text{TAVM}}$;	$t_{\text{p}} = 30 \text{ ms}$	$\leq 10 \text{ W}$
		$t_{\text{p}} = 300 \text{ ms}$	$\leq 5 \text{ W}$
P_{GAVM}			0.5 W
V_{RGM}		10	V
T_{VJ}		-40 ... + 125	$^{\circ}\text{C}$
T_{VJM}		125	$^{\circ}\text{C}$
T_{stg}		-40 ... + 125	$^{\circ}\text{C}$
V_{ISOL}	50/60 Hz, RMS	$t = 1 \text{ min}$	3000 V ~
	$I_{\text{ISOL}} \leq 1 \text{ mA}$	$t = 1 \text{ s}$	3600 V ~
M_{d}	Mounting torque (M4)		1.5 - 2.0 Nm
			14 - 18 lb.in.
Weight	typ.	26	g

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

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

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

Dimensions in mm (1 mm = 0.0394")

Technical drawing showing two views of a mechanical part with dimensions in mm (1 mm = 0.0394").

Top View Dimensions:

- Overall width: $31,6 \pm 0,1$
- Overall height: $34,3 \pm 0,2$
- Left side features:
 - Top corner radius: $R4,3 \pm 0,2$
 - Vertical distance from top edge to centerline: $15,8 \pm 0,2$
 - Bottom corner chamfer: 45°
- Central section features:
 - Top edge chamfer: $3,1 \pm 0,2$
 - Vertical distance from top edge to centerline: $2,8 \pm 0,2$
 - Bottom edge chamfer: $3,1 \pm 0,2$
 - Vertical distance from bottom edge to centerline: $2,8 \pm 0,2$
 - Horizontal distance from left edge to centerline: $4,7 \pm 0,2$
 - Horizontal distance from centerline to right edge: $8,9 \pm 0,2$
- Right side features:
 - Top corner radius: $R2,8 \pm 0,2$
 - Vertical distance from top edge to centerline: $12 \pm 0,2$
 - Bottom edge chamfer: $7,3 \pm 0,2$
- Grid of holes (18 positions):
 - Columns: A, C, E, G, I, K, G
 - Rows: 1, 2, 3, 4, 5, 6, 7, 8, 9
 - Labels: B, D, F, H, J, L, N, P, S, V, X, G

Side View Dimensions:

- Overall height: $20,3 \pm 0,2$
- Overall width: $51,0 \pm 0,2$
- Left side features:
 - Top corner radius: $R8,4$
 - Vertical distance from top edge to centerline: $8,4$
 - Bottom corner chamfer: $35,7^\circ$
- Central section features:
 - Top edge chamfer: $1,5$
 - Vertical distance from top edge to centerline: 1
 - Bottom edge chamfer: 8
- Right side features:
 - Top corner radius: $R2,8 \pm 0,2$
 - Vertical distance from top edge to centerline: $12 \pm 0,2$
 - Bottom edge chamfer: $7,3 \pm 0,2$