

Thyristor Modules

ECO-PAC 2

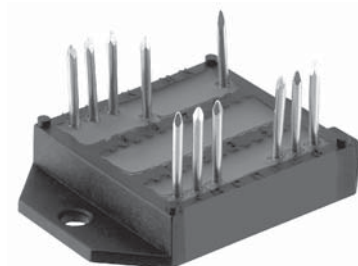
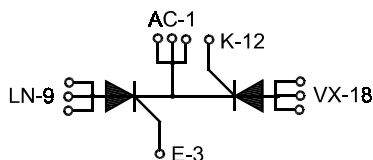
$$I_{TRMS} = 2 \times 180A$$

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

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

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
	$T_{VJ} = 125^\circ C$; $V_R = 0 V$; $t = 10 ms$ (50 Hz), sine	2000	A
	$t = 8.3 ms$ (60 Hz), sine	2150	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
	$T_{VJ} = 125^\circ C$; $V_R = 0 V$; $t = 10 ms$ (50 Hz), sine	20000	A ² s
	$t = 8.3 ms$ (60 Hz), sine	19100	A ² s
$(di/dt)_{cr}$	$T_{VJ} = 125^\circ C$; $f = 50 Hz$; $t_p = 200 \mu s$; $V_D = 2/3 V_{DRM}$; $I_G = 0.45 A$; $di_G/dt = 0.45 A/\mu s$; repetitive, $I_T = 250 A$	150	A/ μs
	non repetitive, $I_T = I_{TAVM}$	500	A/ μs
$(dv/dt)_{cr}$	$T_{VJ} = 125^\circ C$; $V_{DR} = 2/3 V_{DRM}$; $R_{GK} = \infty$, method 1 (linear voltage rise)	1000	V/ μs
P_{GM}	$T_{VJ} = 125^\circ C$; $t_p = 30 ms$	≤ 10	W
	$I_T = I_{TAVM}$; $t_p = 300 ms$	≤ 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; $I_{ISOL} \leq 1 mA$; $t = 1 min$	3000	V ~
	$t = 1 s$	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.

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 ± 0.1
- Overall height: 20.3 ± 0.2
- Left side features:
 - Top edge: 3.1 ± 0.2 (twice)
 - Inner vertical edge: 2.8 ± 0.2 (twice)
 - Outer vertical edge: 5.7 ± 0.2
 - Bottom edge: 4.7 ± 0.2
 - Chamfer: 45°
 - Circle: $\phi 4.3 \pm 0.2$
- Right side features:
 - Top edge: 3.1 ± 0.2 (twice)
 - Inner vertical edge: 2.8 ± 0.2 (twice)
 - Outer vertical edge: 2.8 ± 0.2
 - Bottom edge: 8.9 ± 0.2
 - Chamfer: 12 ± 0.2
- Internal features:
 - Grid points: A, C, E, G, I, K, M, O, Q, S, V, X (top row); B, D, F, H, J, L, N, P, R, T, W, Y (bottom row)
 - Vertical dimensions: 15.8 ± 0.2 , 7.3 ± 0.2
 - Horizontal dimensions: 34.3 ± 0.2 , 12 ± 0.2

Side View Dimensions:

- Overall width: 51 ± 0.2
- Overall height: 8
- Base width: 43
- Top edge: 1.5
- Internal features:
 - Chamfer: 35.7°
 - Vertical dimensions: 8.4 , 1