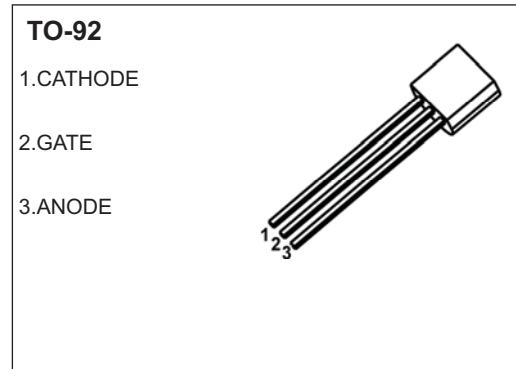


## TO-92 Plastic-Encapsulate Thyristors

### PCR406/PCR606 Silicon Controlled Rectifier

#### MAIN FEATURES

Symbol	Value	Unit
$I_T(\text{RMS})$	0.6	A
$V_{\text{DRM}}$	PCR406	400
	PCR606	600
$T_j$	Junction Temperature	-40 ~ 125
$T_{\text{stg}}$	Storage Temperature	-40 ~ 150



#### DESCRIPTION

Logic level sensitive gate triac intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

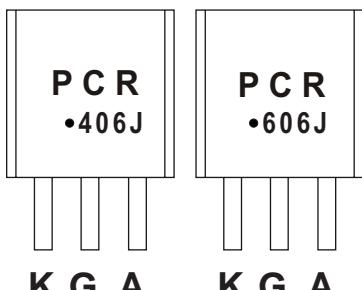
#### FEATURES

- Blocking voltage to 400 V (PCR406)
- RMS on-state current to 0.6 A
- General purpose switching

#### APPLICATIONS

- General purpose switching
- Phase control applications
- Solid state relays

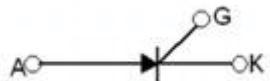
#### MARKING



PCR406 PCR606=Device code

Solid dot=Green molding compound device,  
if none, the normal device

#### Equivalent Circuit



#### ORDERING INFORMATION

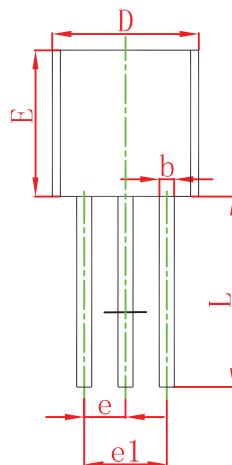
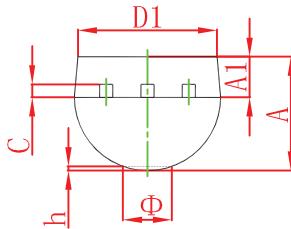
Part Number	Package	Packing Method	Pack Quantity
PCR406	TO-92	Bulk	1000pcs/Bag
PCR406-TA	TO-92	Tape	2000pcs/Box
PCR606	TO-92	Bulk	1000pcs/Bag
PCR606-TA	TO-92	Tape	2000pcs/Box

## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ\text{C}$  unless otherwise specified

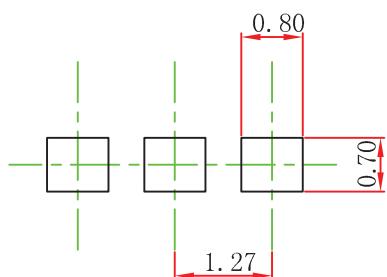
Parameter	Symbol	Test conditions	Min	Max	Unit
On state voltage	$V_{TM}$	$I_{TM}=0.6\text{A}$		1.7	V
Gate trigger voltage	$V_{GT}$	$V_{AK}=7\text{V}$		0.8	V
Repetitive peak off-state voltage	$V_{DRM}(\text{PCR406})$	$I_{DRM}= 10\mu\text{A}$	400		V
	$V_{DRM}(\text{PCR606})$		600		V
Holding current	$I_H$	$I_{HL}=20\text{ mA}, V_{AK} =7\text{ V}$		5	mA
Gate trigger current	$I_{GT}$	$V_{AK}=7\text{V}$	5	15	$\mu\text{A}$
			15	40	$\mu\text{A}$
			40	60	$\mu\text{A}$
			60	80	$\mu\text{A}$
			80	120	$\mu\text{A}$

## TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
K		1.600		0.063
h	0.000	0.380	0.000	0.015

## TO-92 Suggested Pad Layout



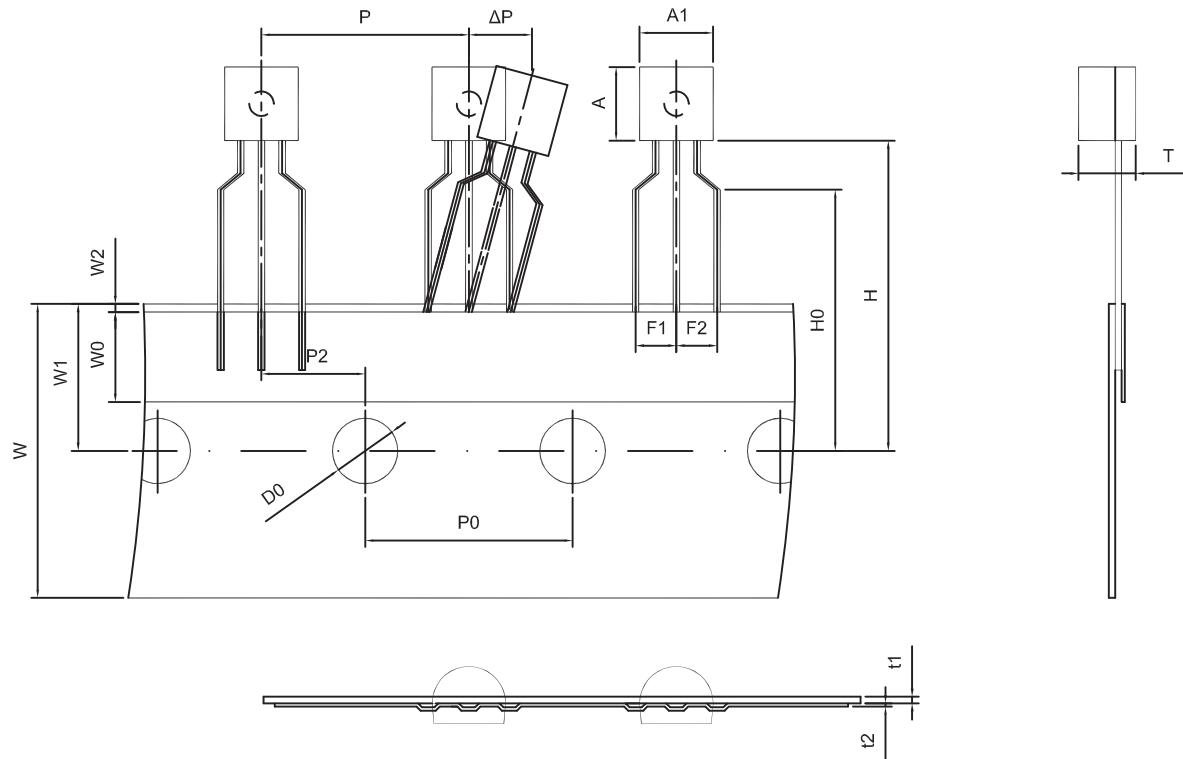
### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.

### NOTICE

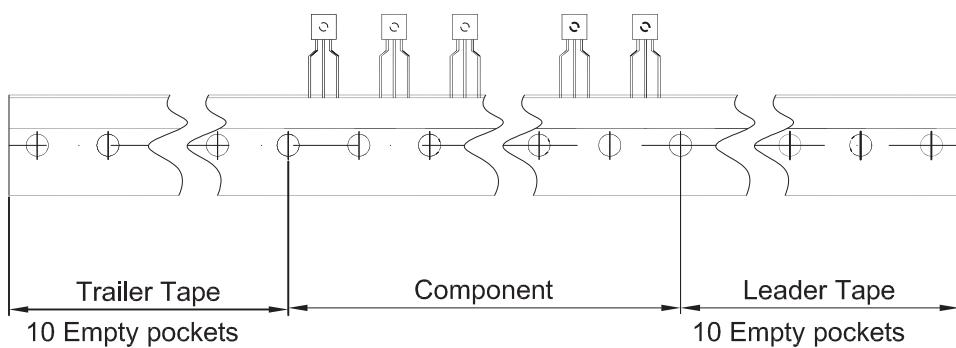
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## TO-92 PACKAGE TAPEING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250