



Jiangsu Weida Semiconductor Co., Ltd.

TO-92 Plastic-Encapsulate Thyristors

PCR0.6 Silicon Controlled Rectifier

MAIN FEATURES

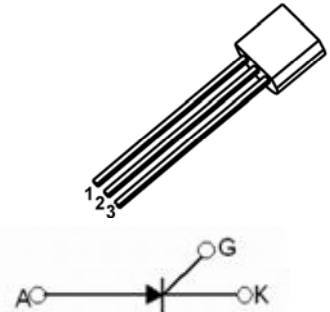
Symbol		Value	Unit
$I_{T(RMS)}$		0.6	A
V_{DRM}	PCR406	400	V
	PCR606	600	
T_j	Junction Temperature	-40 ~ 125	°C
T_{stg}	Storage Temperature	-40 ~ 150	°C

TO-92

1.CATHODE

2.GATE

3.ANODE



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

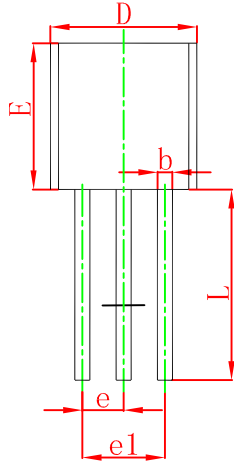
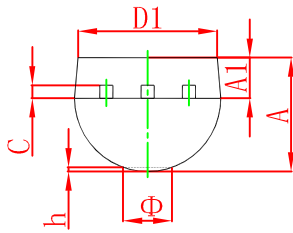
APPLICATIONS

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

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

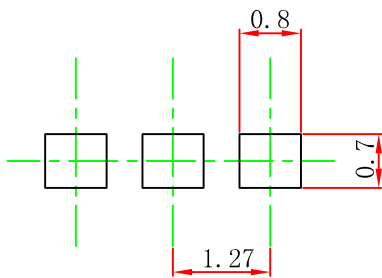
Parameter	Symbol	Test conditions	Min	Max	Unit
On state voltage	V_{TM}	$I_{TM}=0.6A$		1.7	V
Gate trigger voltage	V_{GT}	$V_{AK}=7V$		0.8	V
Repetitive peak off-state voltage	$V_{DRM}(PCR406)$	$I_{DRM}=10\mu A$	400		V
	$V_{DRM}(PCR606)$		600		V
Holding current	I_H	$I_{HL}=20\text{ mA}, V_{AK}=7\text{ V}$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

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	4.400	4.700	0.173	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
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



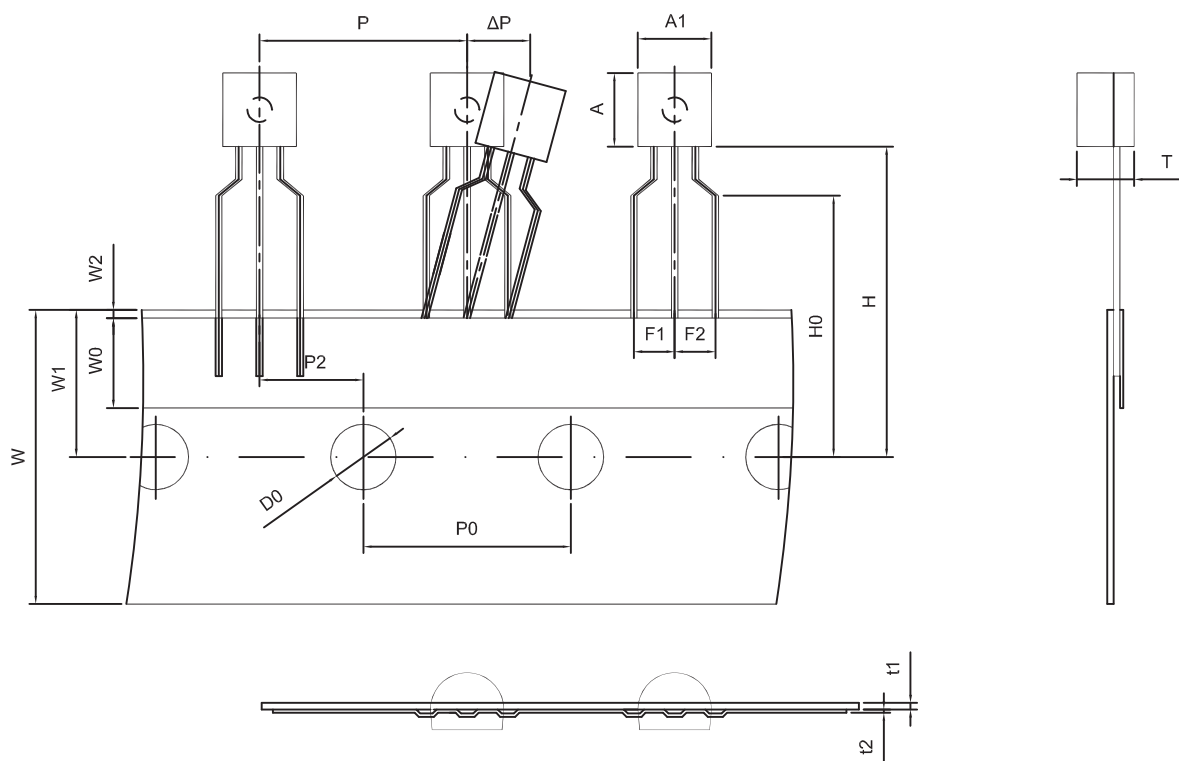
Note:

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

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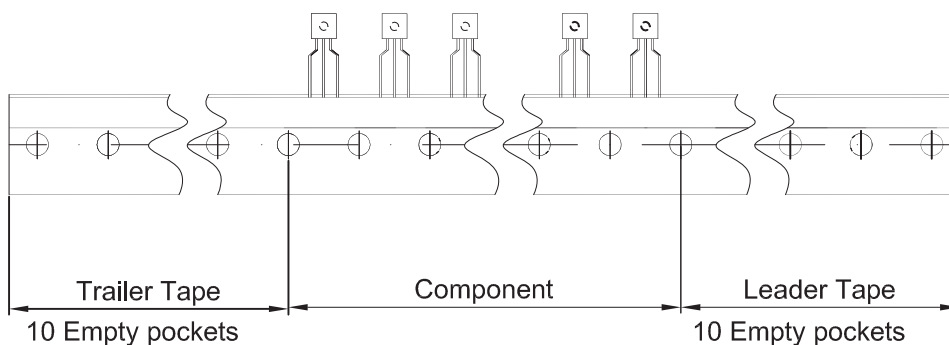
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TO-92 PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5±0.2	4.5±0.2	3.5±0.2	12.7±0.3	12.7±0.2	6.35±0.3	2.5±0.3	2.5±0.3	18.0+1.0/-0.5
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0±0.5	9.0±0.5	1.0 MAX.	19.0±1.0	16.0±0.5	4.0±0.5	0.4±0.05	0.2±0.05	0 ± 1.0



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