

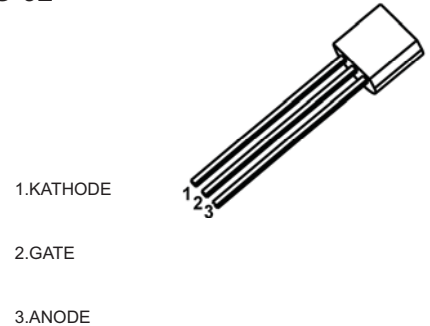
TO-92 Plastic-Encapsulate Thyristors

MCR100- 6,- 8 Silicon Controlled Rectifier

MAIN FEATURES

Symbol		value	unit
$I_{T(RMS)}$		0.8	A
V_{DRM} / V_{RRM}	MCR100-6	400	V
	MCR100-8	600	
T_j	Junction Temperature	-40 ~ 125	°C
T_{stg}	Storage Temperature	-55 ~ 150	°C

TO-92



DESCRIPTION

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

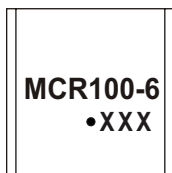
FEATURES

- Blocking voltage to 400 V (MCR100-6)
- RMS on-state current to 0.8 A
- General purpose switching

APPLICATIONS

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

MARKING



MCR100-6=Device code
Solid dot=Green molding compound device,
if none,the normal device
XXX=Code

K G A

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MCR100-6	TO-92	Bulk	1000pcs/Bag
MCR100-6-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}	$I_{TM}=1\text{A}$		1.7	V	
Gate trigger voltage	V_{GT}	$V_{AK}=7\text{V}$		0.8	V	
Peak Repetitive forward and reverse blocking voltage MCR100-6 MCR100-8	V_{DRM}/V_{RRM}	$I_{DRM}/I_{RRM}=10\ \mu\text{A}$	400 600		V	
Peak forward or reverse blocking Current	I_{DRM} I_{RRM}	$V_{AK}=\text{Rated}$ V_{DRM} or V_{RRM}		10	μA	
Holding current	I_H	$I_{HL}=20\text{mA}, V_{AK}=7\text{V}$		5	mA	
Gate trigger current	I_{GT}	$V_{AK}=7\text{V}$	A2	5	15	μA
			A1	15	30	μA
			A	30	80	μA
			B	80	200	μA

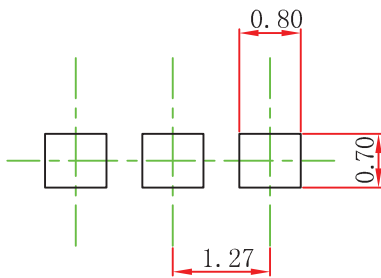
* Forward current applied for 1 ms maximum duration, duty cycle \leq 1%.

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
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



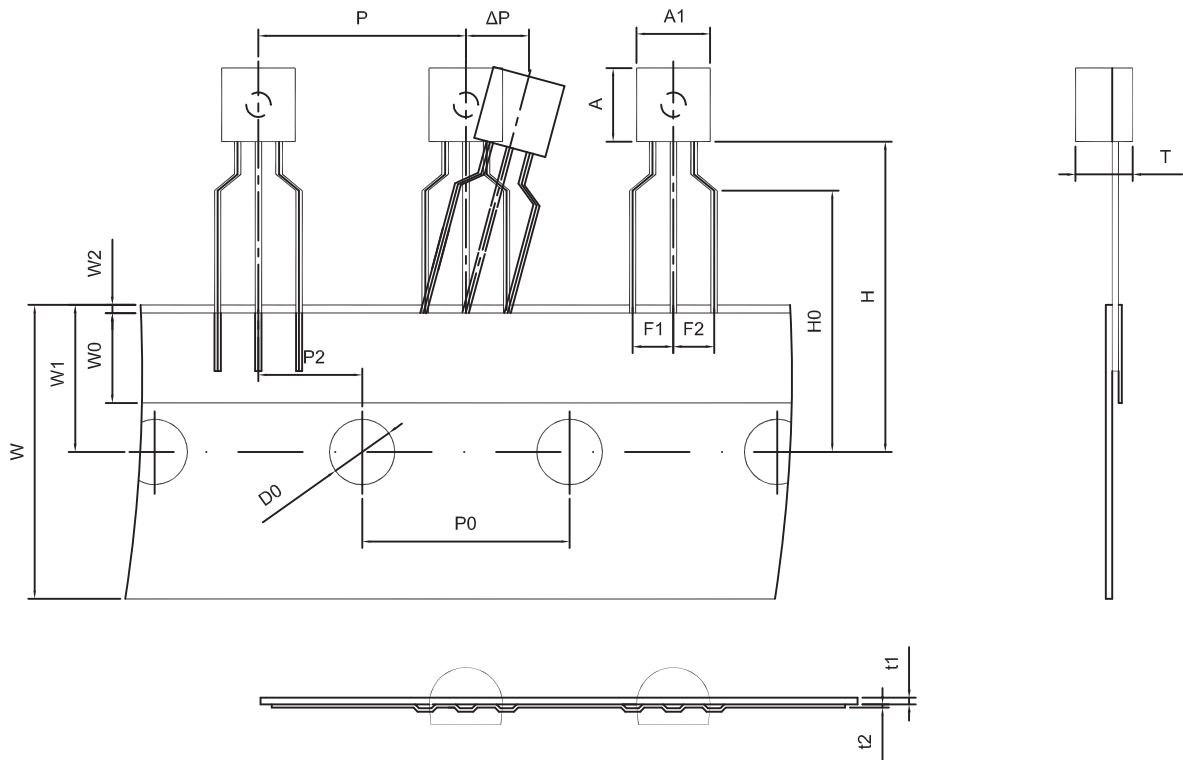
Note:

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

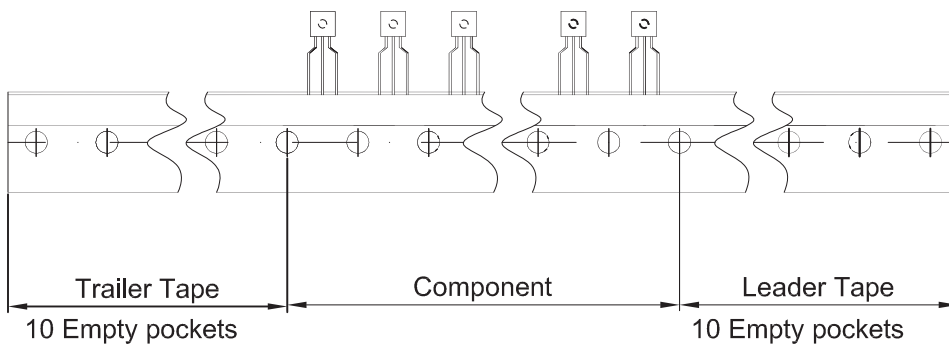
NOTICE

JCET reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JCET does not assume any liability arising out of the application or use of any product described herein.

TO-92 PACKAGE TAPEING DIMENSION



Dimiensions 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