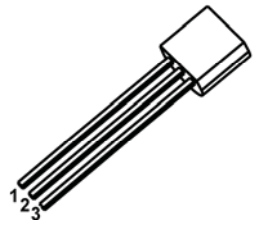
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

TO-92 Plastic-Encapsulate Thyristors

MCR100-6 / MCR100-8 Silicon Controlled Rectifier

TO-92



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	℃
T_{stg}	Storage Temperature	-55 ~ 150	℃

DESCRIPTION

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

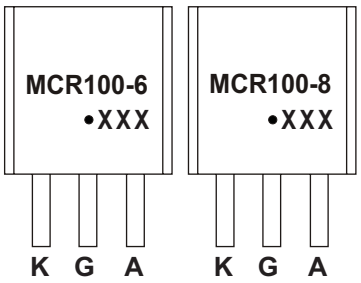
FEATURES

- Blocking voltage to 400V/600V (MCR100-6/MCR100-8)
- RMS on-state current to 0.8 A
- General purpose switching

APPLICATIONS

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

MARKING



MCR100-6 / MCR100-8 = Device code

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

XXX=Code

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
MCR100-8	TO-92	Bulk	1000pcs/Bag
MCR100-8-TA	TO-92	Tape	2000pcs/Box

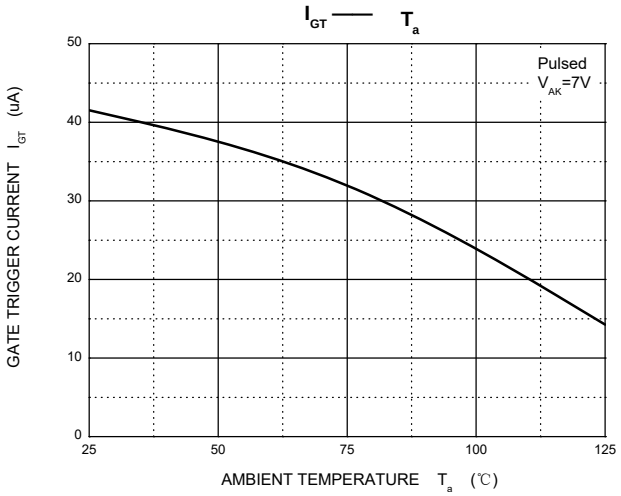
ELECTRICAL CHARACTERISTICS

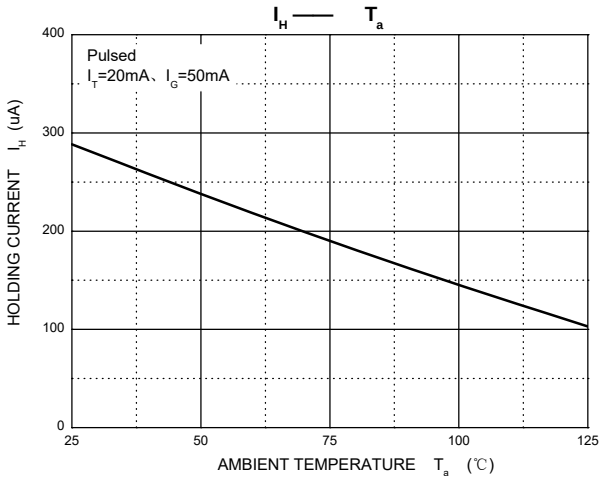
T_a=25℃ unless otherwise specified

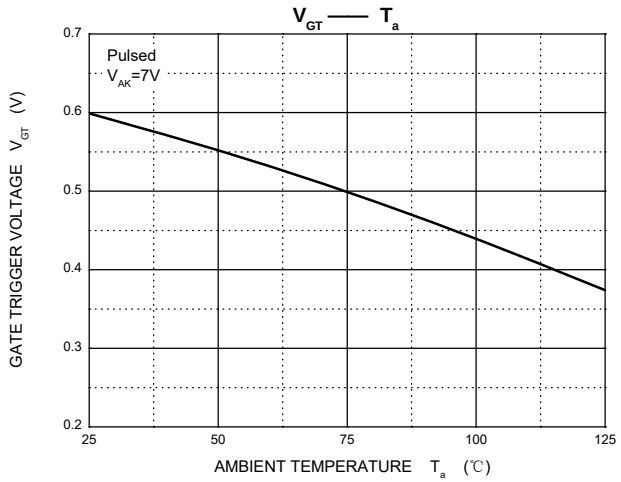
Parameter	Symbol		Test conditions	Min	Max	Unit
On state voltage *	V_{TM}		I_{TM}=1A		1.7	V
Gate trigger voltage	V_{GT}		V_{AK}=7V		0.8	V
Peak Repetitive forward and reverse blocking voltage MCR100-6	V_{DRM}/V_{RRM}		I_{DRM}/I_{RRM}= 10 KA	400		V
MCR100-8				600		
Peak forward or reverse blocking Current	I_{DRM} I_{RRM}		V_{AK}= Rated V_{DRM} or V_{RRM}		10	μA
Holding current	I_H		I_{HL}=20mA ,V_{AK} =7V		5	mA
Gate trigger current	I_{GT}	A2	V_{AK}=7V	5	15	μA
		A1		15	30	μA
		A		30	80	μA
		B		80	200	μA

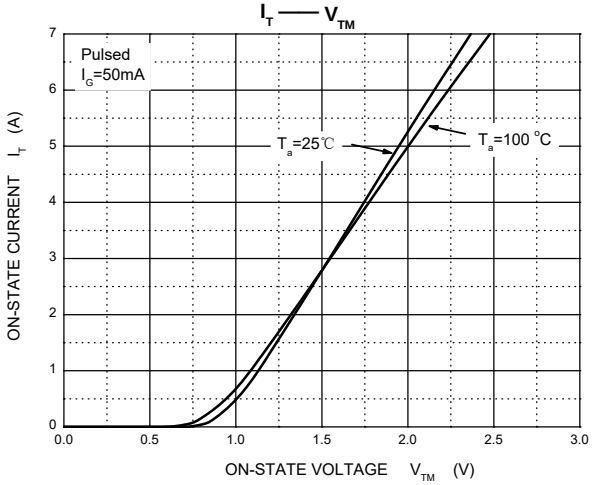
* Forward current applied for 1 ms maximum duration，duty cycle≤1%。

Typical Characteristics

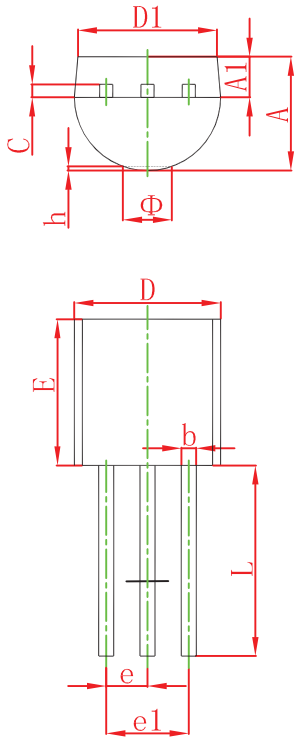






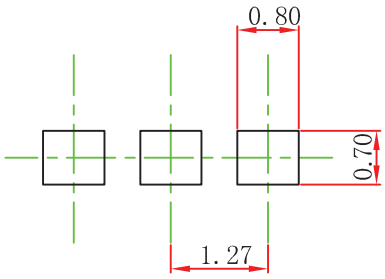


TO-92 Package Outline Dimensions



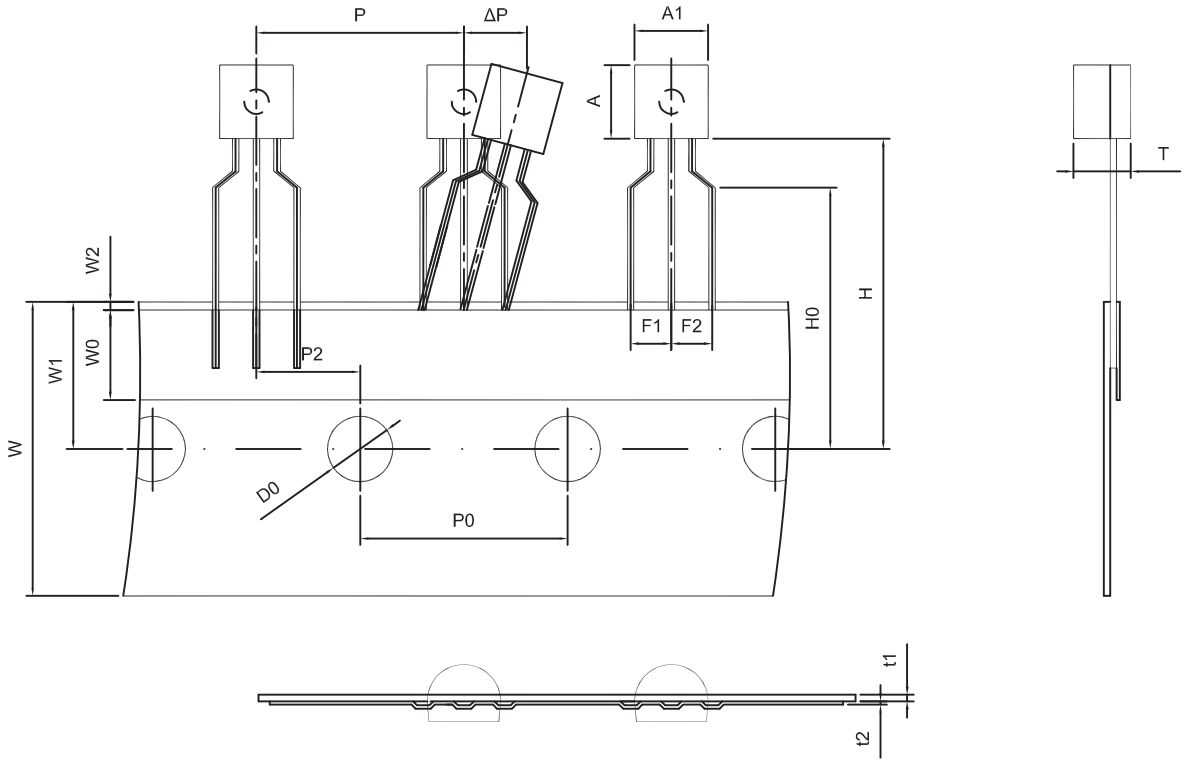
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100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

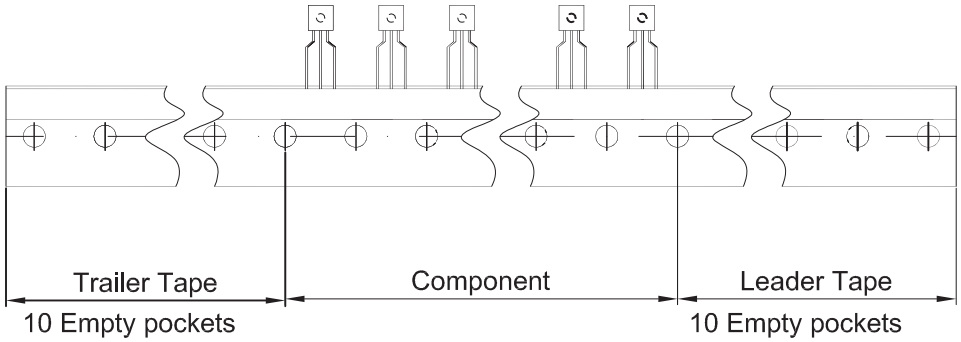


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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