

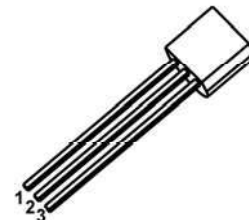
TO-92 Plastic-Encapsulate Thyristors

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	°C
T_{stg}	Storage Temperature	-55 ~ 150	°C



1.KATHODE

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.

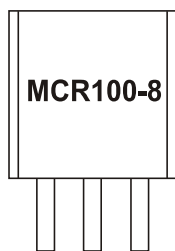
Features:

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

Applications:

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

MARKING



MCR100-8=Device code

K G A

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MCR100-8	TO-92	Bulk	1000pcs/Bag
MCR100-8-TA	TO-92	Tape	2000pcs/Box

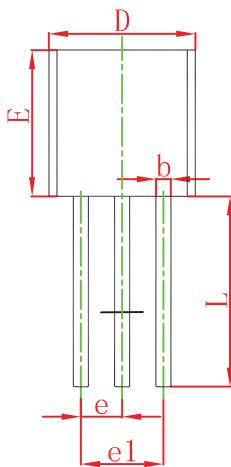
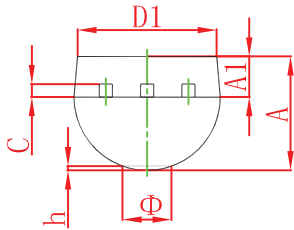
ELECTRICAL CHARACTERISTICS

T_a=25 °C 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 MCR100-8	V _{DRM} /V _{RRM}	I _{DRM} /I _{RRM} = 10 μA	400 600		V	
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}	V _{AK} =7V	A2	5	15	μA
			A1	15	30	μA
			A	30	80	μA
			B	80	200	μA

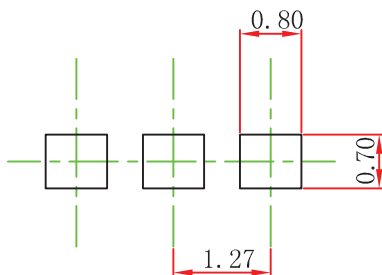
* Forward current applied for 1 ms maximum duration, duty cycle≤1%。

TO-92 Package Outline Dimensions



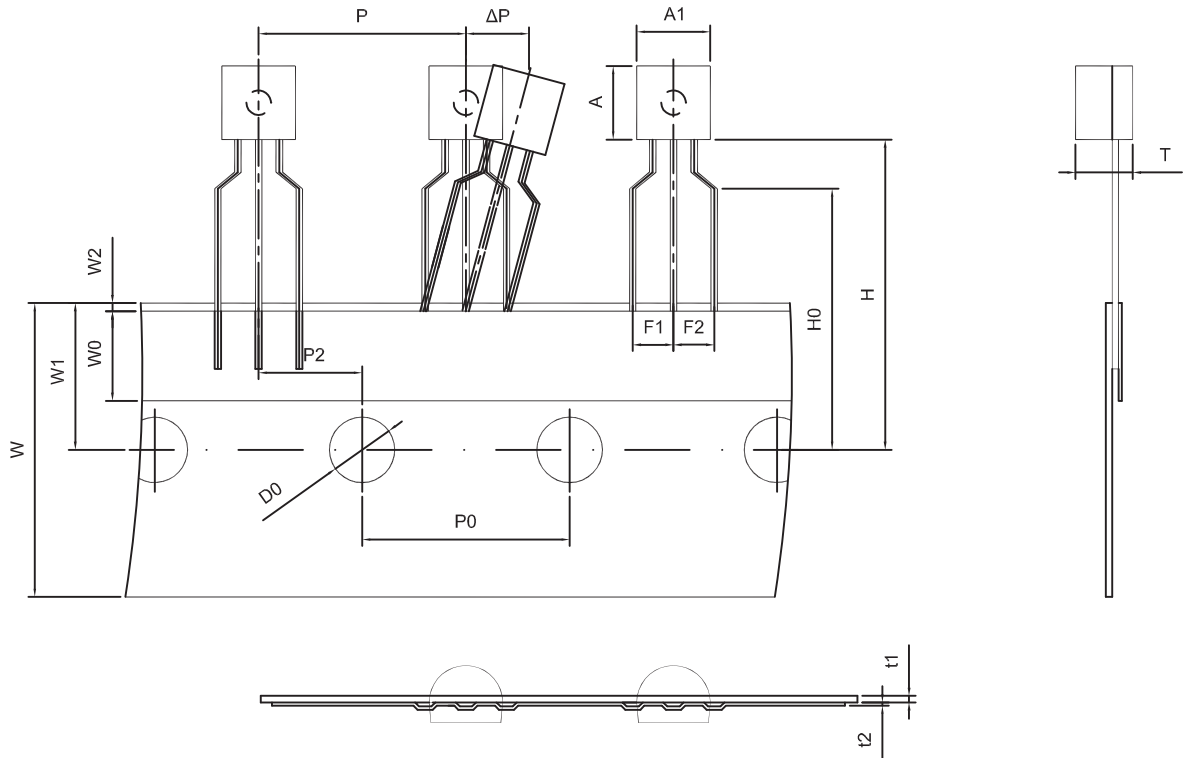
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100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

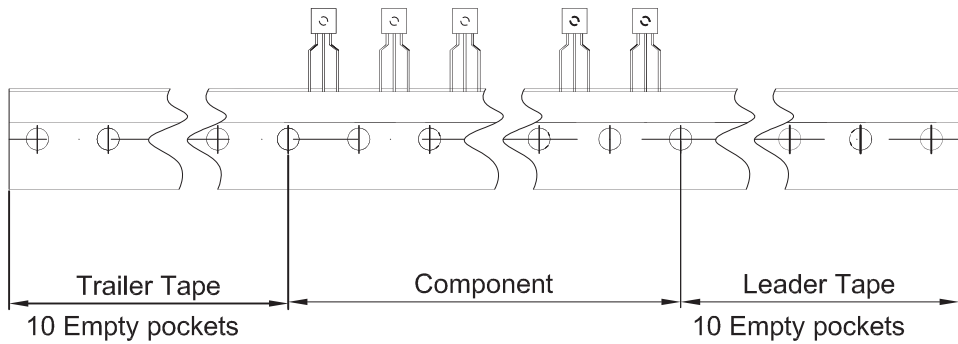


- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

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