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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Small Signal Product

Thyristors

FEATURES

- Epitaxial planar die construction
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Packing code with suffix "G" means Green compound (Halogen free)



TO-92



MECHANICAL DATA

- Case : TO-92 plastic package
- Terminal : Matte tin plated, lead free, solderable per MIL-STD-202, method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Weight : 0.19 gram (approximately)


 1. Cathode 2. Gate 3. Anode
 TO-92 Plastic Package

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Forward Current RMS (All Conduction Angles)	I _{T(RMS)}	0.8	A
Peak Repetitive Forward and Reverse Blocking Voltage (T _J =25°C to 125°C, R _{GK} =1KΩ)	MCR100-3	100	V
	MCR100-4	200	
	MCR100-5	300	
	MCR100-6	400	
	MCR100-7	500	
MCR100-8	600		
Peak Forward Surge Current, T _A =25°C (1/2 Cycle, Sine Wave, 60Hz)	I _{TSM}	10	A
Circuit Fusing Considerations (t= 8.3 ms)	I ² t	0.415	A ² s
Forward Peak Gate Power (T _A =25°C, PW ≤ 1 μs)	P _{GM}	0.1	W
Forward Average Gate Power (T _A =25°C)	P _{GF(AV)}	0.01	W
Forward Peak Gate Current (T _A =25°C, PW ≤ 1 μs)	I _{GFM}	1	A
Reverse Peak Gate Current (T _A =25°C, PW ≤ 1 μs)	V _{GRM}	5	V
Operating junction temperature range	T _J	-40 ~ +125	°C
Storage temperature range	T _{STG}	-40 ~ +150	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature

PARAMETER	SYMBOL	MIN	MAX	UNIT
Peak Forward or Reverse Blocking Current at V _{AK} = Rated V _{DRM} or V _{RPM}	I _{DRM} I _{RPM}	-	10	μA
Peak Forward On-State Voltage at I _{TM} =1A Peak, T _A =25°C	V _{TM}	-	1.7	V
Gate Trigger Current (Continuous dc) at Anode Voltage = 7 Vdc., R _L =100Ω	I _{GT}	-	200	μA
Gate Trigger Current (Continuous dc) at Anode Voltage = 7 Vdc., R _L =100Ω at Anode Voltage = Rated V _{DRM} , R _L =100Ω)	V _{GT}	-	0.8	V
Holding Current at Anode Voltage =7 Vdc, Initiating Current=20mA	I _H	-	5	mA

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

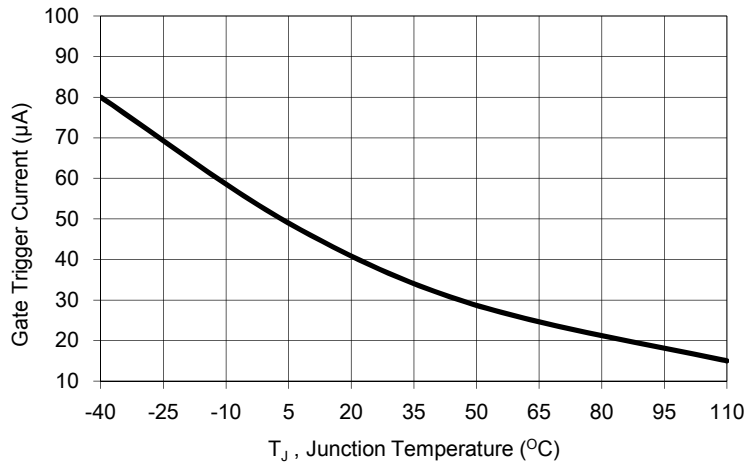


Fig. 1 Typical Gate Trigger Current VS. Junction Temperature

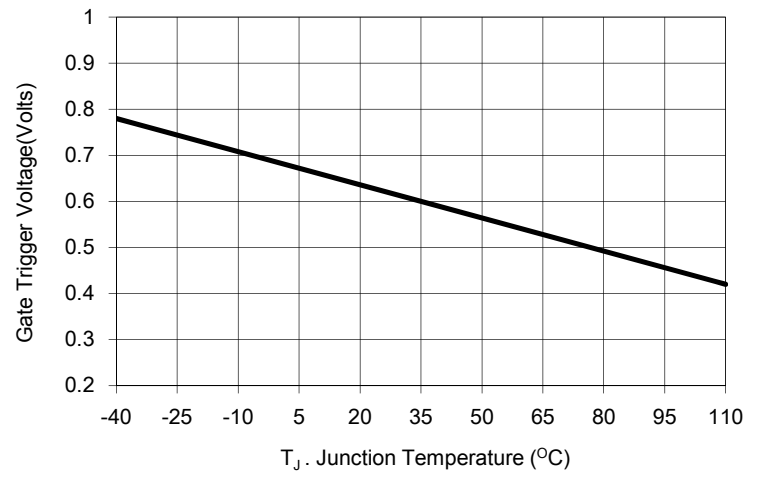


Fig. 2 Typical Gate Trigger Voltage VS. Junction Temperature

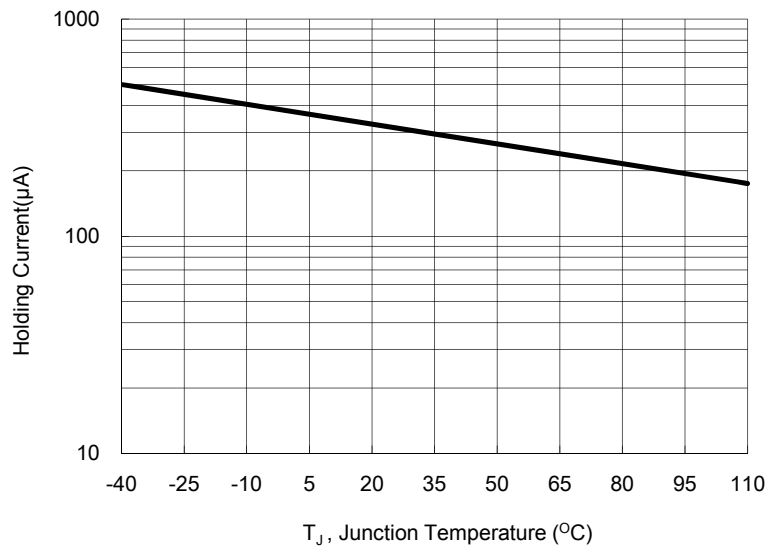


Fig. 3 Typical Holding Current VS. Junction Temperature

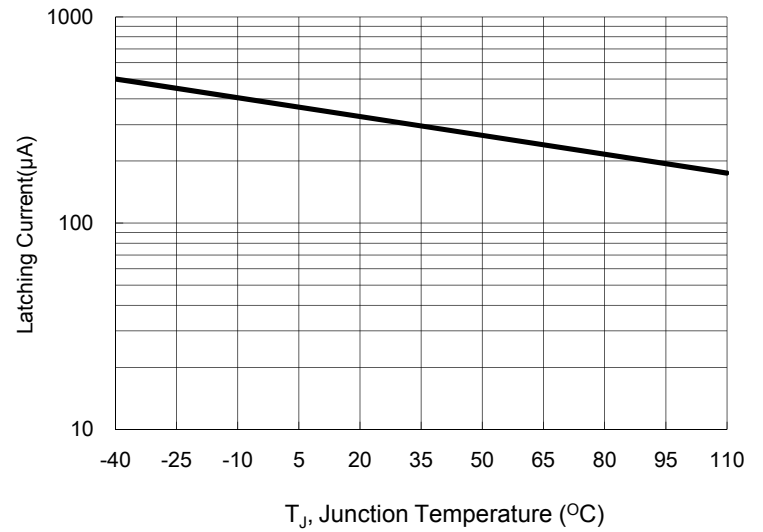


Fig. 4 Typical Latching Current VS. Junction Temperature

Fig. 5 Typical RMS Current Derating

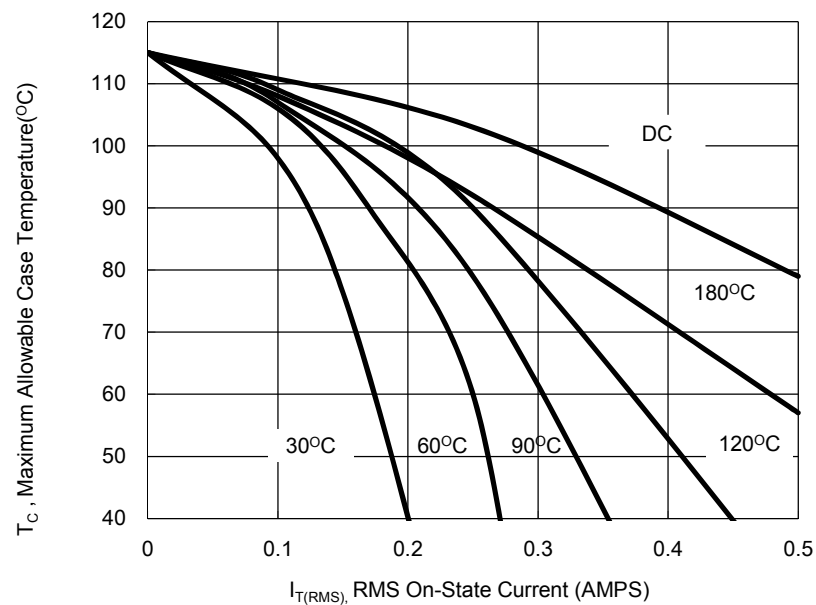
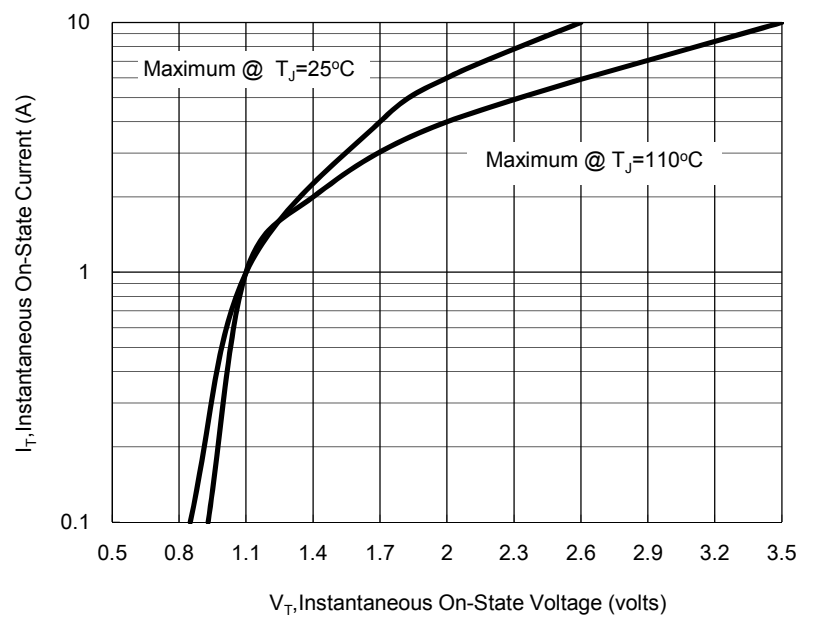


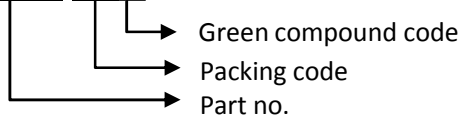
Fig. 6 Typical On-State Characteristics



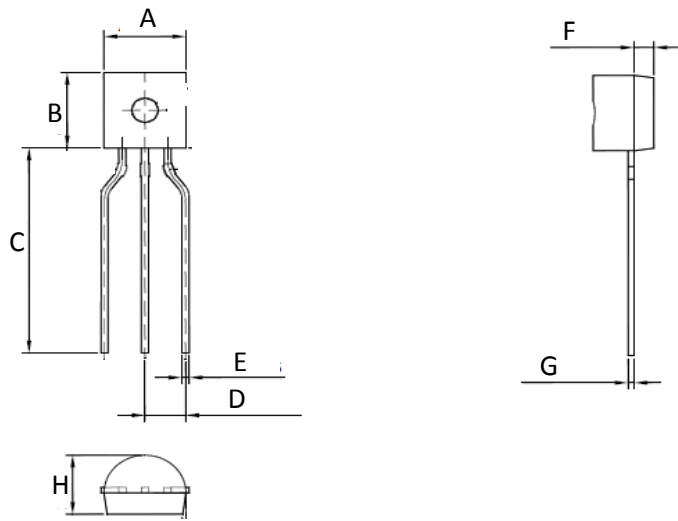
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ORDER INFORMATION (EXAMPLE)

MCR100-3 A1G

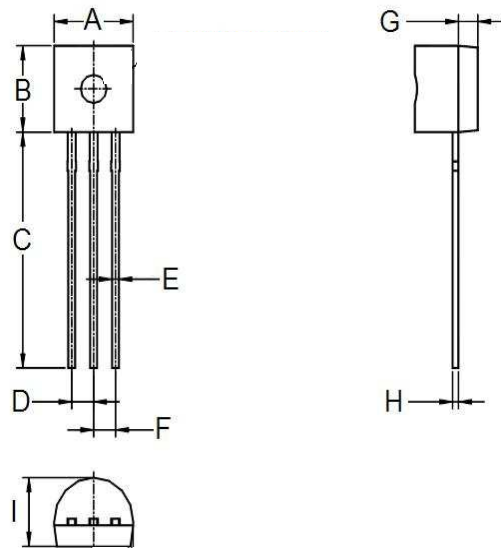


PACKAGE OUTLINE DIMENSIONS
TO-92 (Ammo)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	5.10	0.169	0.201
B	4.30	4.70	0.169	0.185
C	12.50	-	0.492	-
D	2.20	2.80	0.087	0.110
E	0.35	0.55	0.014	0.022
F	0.59	1.40	0.023	0.055
G	0.29	0.51	0.011	0.020
H	3.30	4.10	0.130	0.161

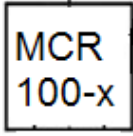
TO-92 (Bulk)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	5.10	0.169	0.201
B	4.30	4.70	0.169	0.185
C	12.50	14.50	0.492	0.571
D	1.17	1.37	0.046	0.054
E	0.35	0.55	0.014	0.022
F	1.17	1.37	0.046	0.054
G	0.59	1.40	0.023	0.055
H	0.29	0.51	0.011	0.020
I	3.30	4.10	0.130	0.161

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MARKING DIAGRAM



x = Device P/N from 3~8

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