

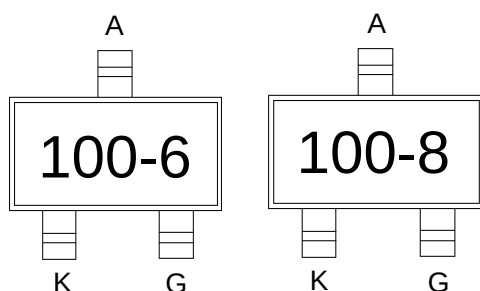
Plastic-Encapsulate Thyristors

Features

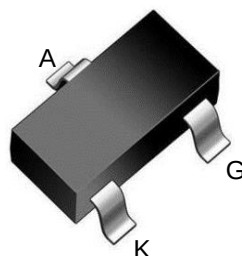
- Operating and storage junction temperature range
 $T_J, T_{stg} : -55^{\circ}\text{C to } +150^{\circ}\text{C}$

Features

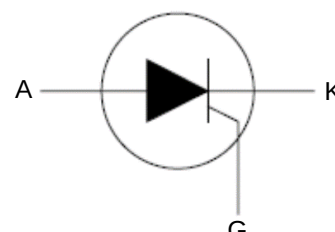
- General purpose switching
- Phase control applications
- Solid state relays



Marking and pin assignment



SOT-23 top view



Equivalent Circuit



Pb-Free



RoHS



Halogen-Free

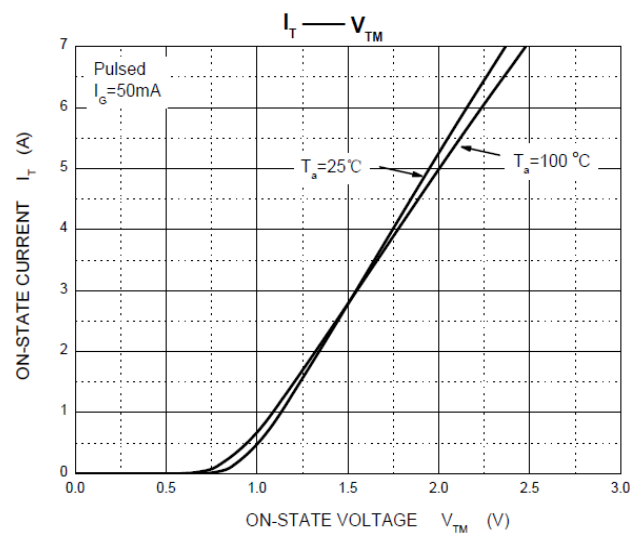
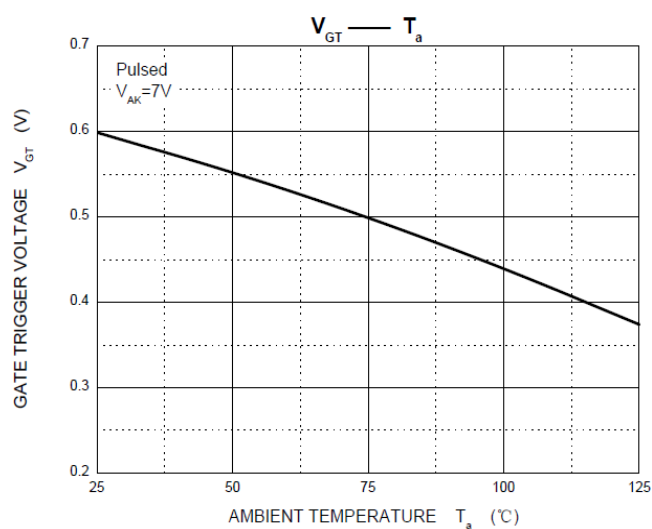
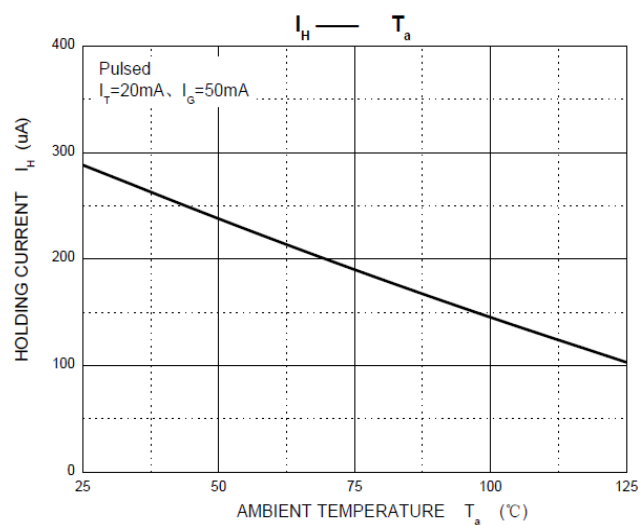
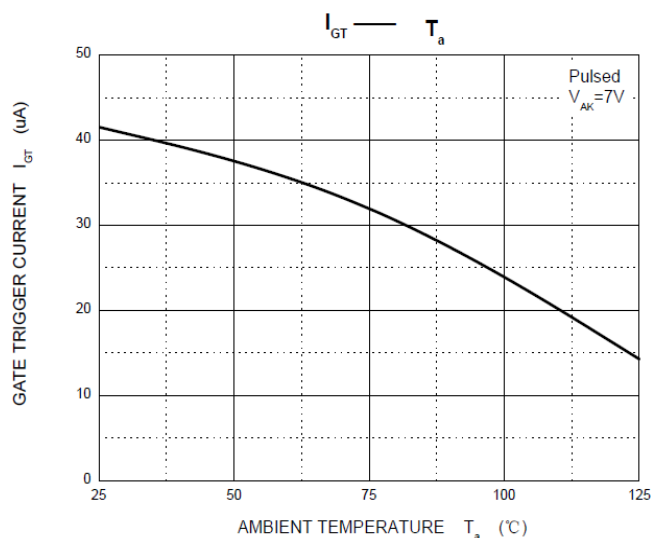
Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter		Value	Unit
$I_{T(RMS)}$	RMS on-state current		0.8	A
V_{DRM}	Repetitive peak off-state voltage	MCR100-6	400	V
		MCR100-8	600	V
T_J	Junction Temperature		$-40 \sim +125$	$^{\circ}\text{C}$
T_{stg}	Storage Temperature		$-40 \sim +150$	$^{\circ}\text{C}$

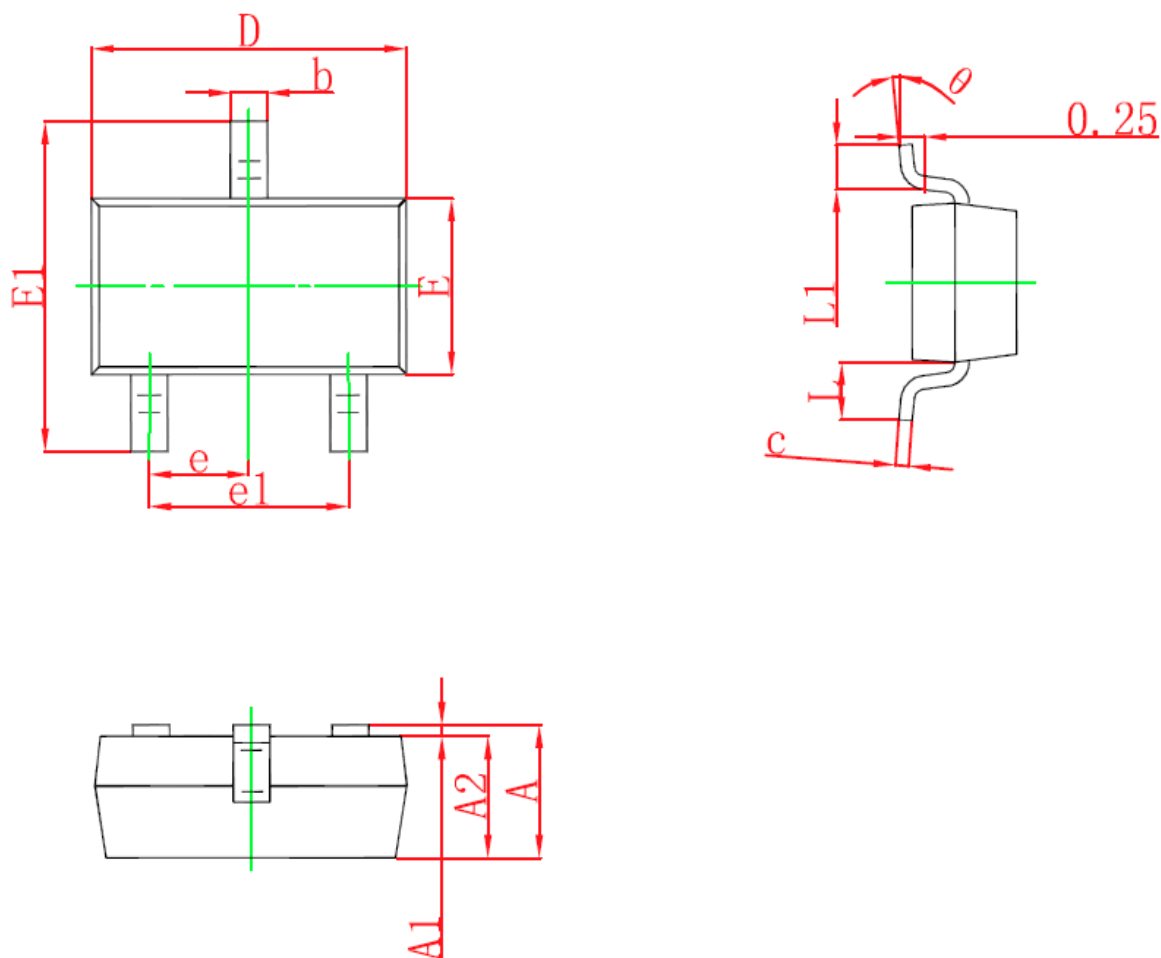
Electrical Characteristics($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter		Test conditions	Min.	Max.	Unit
V_{TM}	On state voltage		$I_{TM}=1\text{A}$	-	1.7	V
V_{GT}	Gate trigger voltage		$V_{AK}=7\text{V}$	-	0.8	V
V_{DRM} AND V_{RRM}	Repetitive peak off-state voltage	MCR100-6	$I_{DRM}=10\mu\text{A}$	400	-	V
		MCR100-8	$I_{DRM}=10\mu\text{A}$	600	-	V
I_{RRM}	Peak forward or reverse blocking Current		V_{DRM} or V_{RRM}	10	-	μA
I_{DRM}						
I_H	Holding current		$I_T=600\text{mA}, I_G=20\text{mA}$	-	5	mA
I_{GT}	Gate trigger current		$V_{AK}=7\text{V}$	10	60	μA

Typical Operating Characteristics



SOT-23 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°