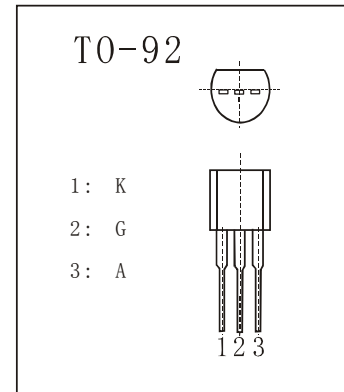


## Silicon Controlled Rectifiers—TSE100-8

### Application

Designed primarily application for leakage current detection, lamp control, logic circuit driver, larger power SCR driver, motorcycle ignition and other switch control circuit.



### Features

- Low forward voltage drop
- High peak repetitive off-state voltage
- High sensitivity of triggering
- High reliability
- TO-92 package
- Reference: MCR100-6, MCR100-8, BT169

### Absolute rating (Ta=25°C)

Parameter	Symbol	Value	Unit
Peak Repetitive Off-State Voltage	$V_{DRM}$	600	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
On-State Average Current	$I_{T(AV)}$	1	A
RMS On-State Current	$I_{T(RMS)}$	1.5	A
Peak Non-repetitive Surge Current	$I_{TSM}$	10	A
Operating Junction Temperature	$T_J$	125	°C
Storage Temperature Range	$T_{stg}$	-40~125	°C

**Electrical characteristic (Ta=25°C)**

Parameter	Symbol	Unit	Criterion			Conditions
			Min	Type	Max	
Peak Repetitive Off-State Voltage	$V_{DRM}$	V	450	600		
Peak Repetitive Reverse Voltage	$V_{RRM}$	V	450	600		$I_R=50\mu A$
Peak Repetitive Off-State Current	$I_{DRMI}$	$\mu A$			10	$V_{DRM}=600V$
Peak On-State Voltage	$V_{TM}$	V		1.3	1.7	$I_T=2A$
Holding Current	$I_H$	mA			5	$I_T=0.1A, I_{GT}=0.12mA$
Latching Current	$I_L$	mA		0.17	10	$V_D=12V, I_{GT}=0.1A$
Gate Trigger Current	$I_{GT}$	$\mu A$	10	30	100	$V_D=6V, R_L=100\Omega$
Gate Trigger Voltage	$V_{GT}$	V	0.4		0.8	$V_D=6V, R_L=100\Omega$
Peak Gate Current	$I_{GM}$	A			0.5	
Peak Gate Voltage	$V_{GM}$	V			5	
Peak Gate Reverse Current	$V_{RGM}$	V			5	
Critical Rate of Rise of Off-State Voltage	dV/dt			25		$V_{DM}=67\%V_{DRM}, T_j=125^\circ C, R_L=1k\Omega$
Critical Rate of Rise of On-State Current	dIt/dt	A/ $\mu s$			50	$I_T=2A, I_G=10mA, dI_G=100mA/\mu s$
Gate Non-Trigger Current	$V_{GD}$	V	0.1			$V_{DRM}=400V, R_{GR}=1K\Omega, T_j=125^\circ C$

※ The Parameter is related to the temperature