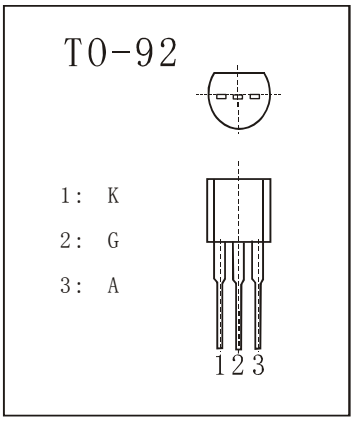
Silicon Controlled Rectifiers—TSE169

Applications

TSE169 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：BT169

Absolute Rating(Ta=25℃)

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	$I_{T(AV)}$	0.5	A
RMS On-State Current	$I_{T(RMS)}$	0.8	A
Peak Non-repetitive Surge Current	I_{TSM}	8	A
Junction Temperature	T_J	125	℃
Storage Temperature	Tatg	-40～125	℃

Electrical Characteristic（Ta=25℃）

Parameter	Symbol	Unit	Criterion			Test 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=50μA
Peak Repetitive Off-State Current	I_{DRMI}	μA			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}	μA	10	30	100	V_D=6 V，R_L=100Ω
Gate Trigger Voltage	V_{GT}	V	0.4		0.8	V_D=6 V，R_L=100Ω
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		500	800		V_{DM}=67%V_{DRM}，Tj=125℃，R_L=1kΩ
Critical Rate of Rise of On-State Current	dIt/dt	A/μs			50	I_T=2A，I_G=10mA，dI_G=100mA/μs
Gate Non-Trigger Current	V_{GD}	V	0.1			V_{DRM}=400V， R_{GR}=1KΩ，T_j=125℃

※ ： The Parameter is related to the temperature