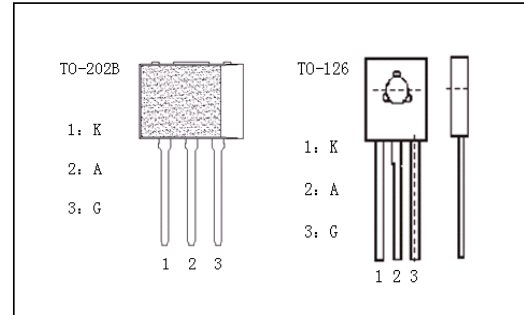


## Silicon Controlled Rectifiers—TSE2P4M

### Applications

Designed primarily application for motorcycle ignition ,it's also widely used for switch control circuit, small motor controller, lamp controller, leakage current detection, lamps and lanterns relay stimulus, logic circuit driver, larger power SCR driver, and others.



### Features

- Low forward voltage drop
- High peak repetitive off-state voltage
- High sensitivity of triggering
- High reliability

### Absolute rating (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Peak Repetitive off-state Voltage	$V_{DRM}$	600	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
On-State Average Current	$I_{T(AV)}$	2	A
RMS On-State Current	$I_{T(RMS)}$	3	A
Peak Non-repetitive Surge Current	$I_{TSM}$	20	A
Junction Temperature	$T_J$	125	°C
Storage Temperature	Tatg	-40~125	°C

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

Parameter	Symbol	Unit	Criteria			Test conditions
			Min	Type	Max	
Peak Repetitive Off-State Voltage	$V_{DRM}$	V	450	600		
Peak Repetitive Reverse Voltage	$V_{RRM}$	V	450	600		$I_R=50\mu A$

Peak Repetitive Off-State Current	$I_{DRMI}$	$\mu A$			10	$V_{DRM}=600V$
Peak on-state voltage	$V_{TM}$	V		1.3	1.7	$I_T=4A$
Holding current	$I_H$	mA			5	$I_T=0.1A, I_{GT}=0.2mA$
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	0.5		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 reverse gate voltage	$V_{RGM}$	V			5	
Critical Rate of Rise of Off-State Voltage	dV/dt	V/ $\mu s$		50		$V_{DM}=67\%V_{DRM}, T_j=125^\circ C, R_L=100\Omega$
Critical Rate of Rise of On-State Current	dIt/dt	A/ $\mu s$			50	$I_T=10A, I_G=50mA, dI_G=50mA/\mu s$
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 operating ambient temperature