

SCR

2P4M

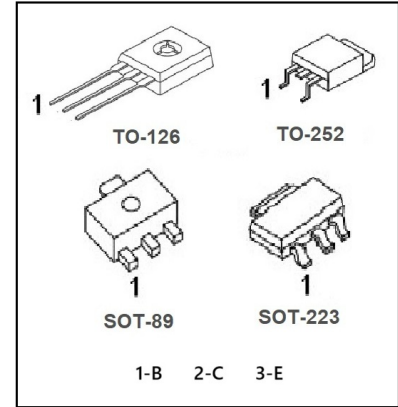
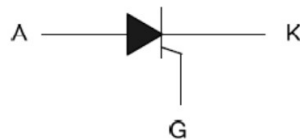
FEATURES

- Sensitive Gate Trigger Current
- Low Reverse and Forward Blocking Current
- Low Holding Current
- Glass-Passivated Surface for Reliability and Uniformity

APPLICATIONS

Widely used in all kinds of universal switches, small motor control controller, color lamp controller, leakage protector, lamp relay Line power control of exciter, logic integrated circuit drive, high-power thyristor gate drive, motorcycle igniter, etc...

SYMBOL



Package	Pin assignment		
	1	2	3
TO-126	K	A	G
TO-252	K	A	G
SOT-89	K	A	G
SOT-223	K	A	G

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Repetitive Peak Off-State Voltages	V_{DRM}/V_{RRM}	600	V
RMS on-State Current	$I_{T(RMS)}$	2.0	A
Non-Repetitive Peak On-State Current	I_{TSM}	20	A
Operating junction temperature	T_j	125	°C
Storage Temperature	T_{stg}	-40~150	°C

ELECTRICAL CHARACTERISTICS (T_J=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	Min	Max	UNIT
Peak Repetitive Forward or Reverse Blocking Current	I_{DRM}/I_{RRM}	$V_{AK} = \text{Rated } V_{DRM} \text{ or } V_{RRM}$		0.1	mA
Peak Forward On-State Voltage	V_{TM}	$I_T=2.0A$		1.7	V
Gate Trigger Current	I_{GT}	$V_D=12V, R_L=100\Omega$		200	μA
Gate Trigger Voltage	V_{GT}	$V_D=12V, R_L=100\Omega$		0.9	V
Gate Non-Trigger Voltage	V_{GD}	$V_D=1/2 V_{DRM}$	0.2	----	V
Holding Current	I_H	$I_T=50mA$		5	mA
Latch Current	I_L	$I_G=1.2I_{GT}$		6	mA
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DM}=67\%V_{DRM}, T_j=110^\circ C$	10		V/μS

TYPICAL CHARACTERISTICS

FIG.1: Maximum power dissipation versus RMS on-state current

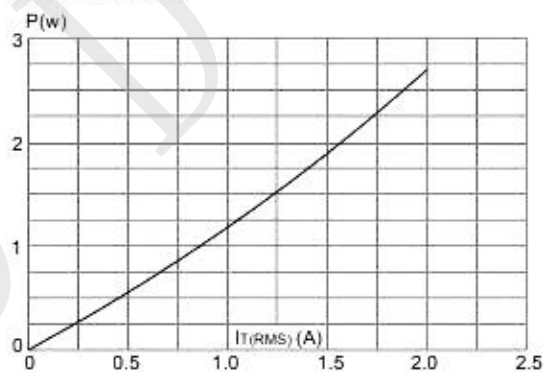


FIG.2: RMS on-state current versus case temperature

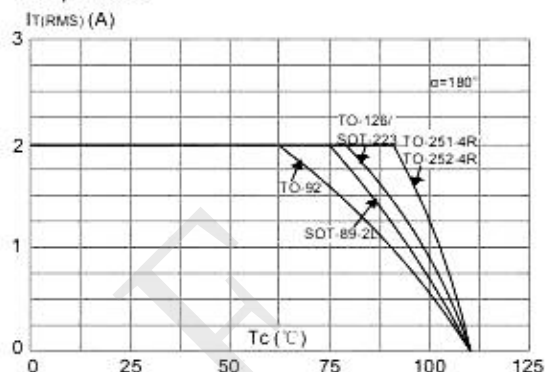


FIG.3: Surge peak on-state current versus number of cycles

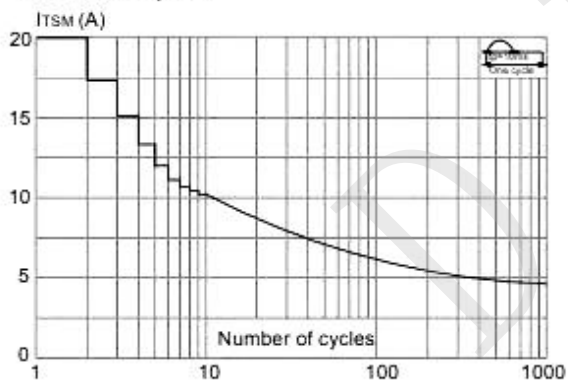


FIG.4: On-state characteristics (maximum values)

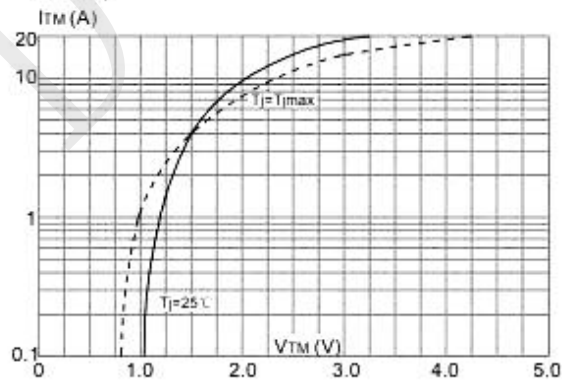


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$, and corresponding value of $I^2 t$ ($di/dt < 50\text{A}/\mu\text{s}$)

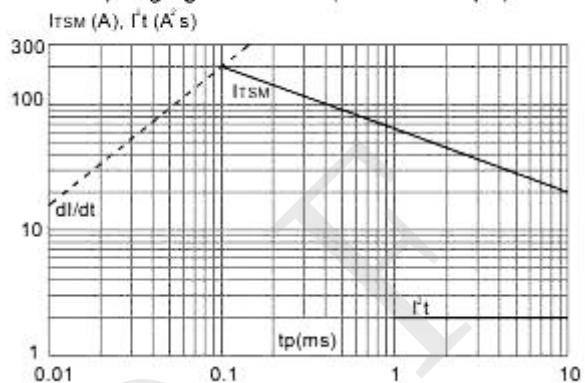


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

