

TRIAC

MAC97A6

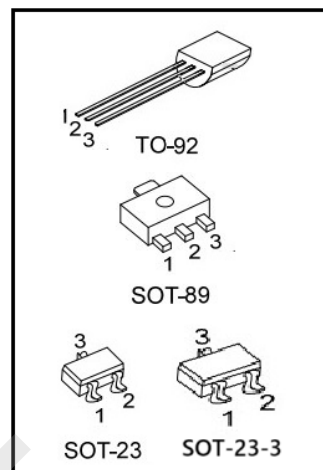
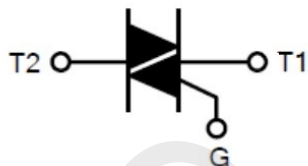
FEATURES

- Direct interfacing to logic level ICs
- Direct interfacing to low power gate drive circuits and microcontrollers
- High blocking voltage capability
- Planar passivated for voltage ruggedness and reliability
- Triggering in all four quadrants
- Very sensitive gate

APPLICATIONS

- General purpose bi-directional switching and phase control application.
- Air conditioner indoor fan control
- General purpose motor control
- General purpose switching

SYMBOL:



Package	Pin assignment		
	1	2	3
TO-92	T1	G	T2
SOT-23	T1	G	T2
SOT-23-3	T1	G	T2
SOT-89	T1	T2	G

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM}	400/600		V
	V_{RRM}	400/600		
RMS on-State Current	$I_{\text{T(RMS)}}$	0.8		A
Non-Repetitive Peak On-State Current	I_{TSM}	8		A
I^2t for fusing	I^2t	0.26		A ² s
Repetitive rate of rise of on-state current after triggering	$dI/T/dt$	I-II-III	50	A/uS
		IV	10	
Peak gate current	I_{GM}	1		A
Peak Gate Power	P_{GM}	1		W
Average Gate Power	$P_{\text{G(AV)}}$	0.1		W
Operating junction temperature	T_{J}	-40~+125		℃
Storage Temperature	T_{STG}	-40 ~ +150		℃

ELECTRICAL CHARACTERISTICS (T_J=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	MAX	UNITS
Peak Repetitive Forward or Reverse Blocking Current	I_{DRM} I_{RRM}	$V_{AK} = \text{Rated } V_{DRM}$ or V_{RRM} ;			5	uA
Gate Trigger Current	I_{GT}	$V_D=12V$, $R_L=100\Omega$	I		5	mA
			II		5	
			III		5	
			IV		10	
Gate Trigger Voltage	V_{GT}	$V_D=12V$, $R_L=100\Omega$			1.3	V
Peak Forward On-State Voltage	V_{TM}	$I_T=1.0A$			1.5	V
Latch Current	I_L	$I_G = 1.2 I_{GT}$	I		10	mA
			II		20	
			III		10	
			IV		10	
Holding Current	I_H	$I_T=0.1A$			8	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=V_{DRM}$		0.2		V
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_D=67\%V_{DRM}$, $R_{GK}=1k\Omega$		5		V/ μs