

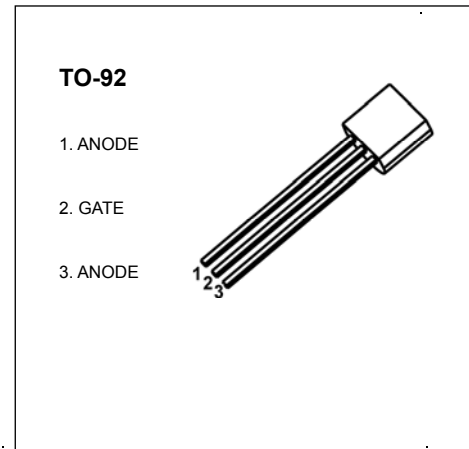


TO-92 Plastic-Encapsulate Thyristors

MAC97A6 ,A8 TRIAC

MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	1	A
V_{DRM}/V_{RRM}	MAC97A6	400 V
	MAC97A8	600 V
I_{TSM}	8	A



DESCRIPTION

Logic level sensitive gate triac intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

FEATURES

- Blocking voltage to 400 V (MAC97A6)
- RMS on-state current to 0.6 A
- General purpose bidirectional switching

APPLICATIONS

- General purpose bidirectional switching
- Phase control applications
- Solid state relays

Limiting values

Symbol	Parameter Condit	ions	Value	Unit
V_{DRM} / V_{RRM}	repetitive peak off-state voltage MAC97A6 MAC97A8	$T_j = 25 \text{ to } 125 \text{ } ^\circ\text{C}$	400	V
		$T_j = 25 \text{ to } 125 \text{ } ^\circ\text{C}$	600	
I_{GM}	gate current(peak value)	$t = 2\mu\text{s max}$	1	A
V_{GM}	gate voltage(peak value)	$t = 2\mu\text{s max}$	5	V
P_{GM}	gate power(peak value)	$t = 2\mu\text{s max}$	5	W
T_j	Junction Temperature	-	-40 ~ 125	$^\circ\text{C}$
T_{sta}	Storage Temperature	-	-40 ~ 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Max	Unit	
Rated repetitive peak off-state/reverse voltage		V _{DRM} , V _{RRM}	I _D =10μA MAC97A6 MAC97A8	400 600		V	
Rated repetitive peak off-state current		I _{DRM}	V _D =V _{DRM}		10	μA	
On-state voltage		V _{TM}	I _T =1A, I _G =50mA		1.9	V	
Gate trigger current	I	I _{GT}	T ₂ (+), G(+)	V _D =12V R _L =100Ω		5	mA
	II		T ₂ (+), G(-)			5	mA
	III		T ₂ (-), G(-)			5	mA
	IV		T ₂ (-), G(+)			-	mA
Gate trigger voltage	I	V _{GT}	T ₂ (+), G(+)	V _D =12V R _L =100Ω		1.5	V
	II		T ₂ (+), G(-)			1.5	V
	III		T ₂ (-), G(-)			1.5	V
	IV		T ₂ (-), G(+)			-	V
Holding current		I _H	I _T =600mA, I _G =20mA		10	mA	