

P/N: YZPST-MAC97A6 97A8 Triacs

Feature

- ◆ Silicon triacs devices as sensitive design
- ◆ P type through diffusion isolated
- ◆ Mesa glass-passivated technology
- ◆ Back side of multi-layer metal

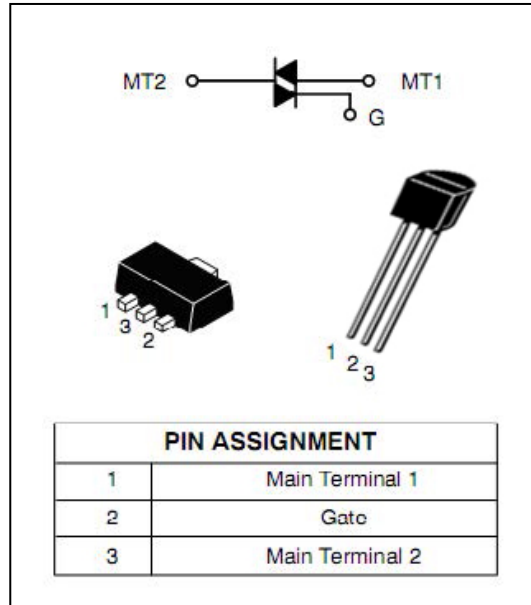
Typical application

- ◆ Heating controller; dimming controller
- ◆ Lamp control; Home Appliances

Package

- ◆ TO-92 SOT-89

Main Specification (T_j=25°C)



Type	Content	Value	Unit
I _{T(RMS)}	Nominal RMS on-state Current	0.8	A
V _{DRM} /V _{RRM}	Off-state/reverse repetitive peak voltage	MAC97A6	400
		MAC97A8	600
I _{TSM}	Non-repetitive on-state surge current	8.0	A

Limited Specification

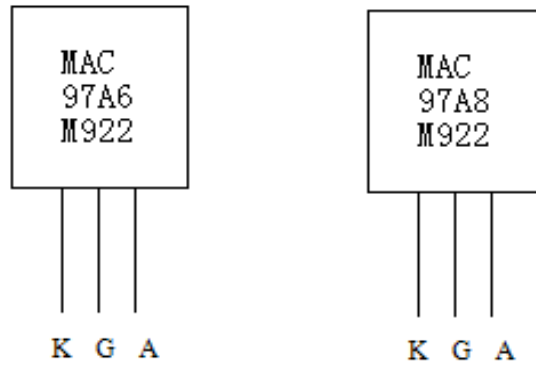
Type	Specification and conditions	value	units
I _{T(RMS)}	Nominal RMS on-state Current T _{lead} ≤ 50°C	0.8	A
V _{DRM} /V _{RRM}	Repetitive peak off-state voltage T _j =25°C/	MAC97A6	400
	Repetitive peak reverse voltage T _j =25°C	MAC97A8	600
I _{TSM}	Non-repetitive on-state surge current sine 50HZ, one cycle T _c =25°C	9.0	A
I ² t	Fuse current (t _p =10ms)	0.45	A ² S
IGM	Gate peak current	1	A
PGM	Gate peak power	1	W

PG(AV)	Gate average power	0.1	W
di/dt	Critical rate of rise of on state voltage ($I_{TM}=1\text{ A}$, $I_G=0.2\text{ A}$, $d I_G /dt=0.2\text{ A}/\mu\text{s}$, $T_j=110^\circ\text{C}$)	20	A/ μs
Tstg Tj	Storage temperature Junction temperature	-40--+150 -40--+110	$^\circ\text{C}$

■ Electric Characteristic ($T_j=25^\circ\text{C}$ unless show others temperature)

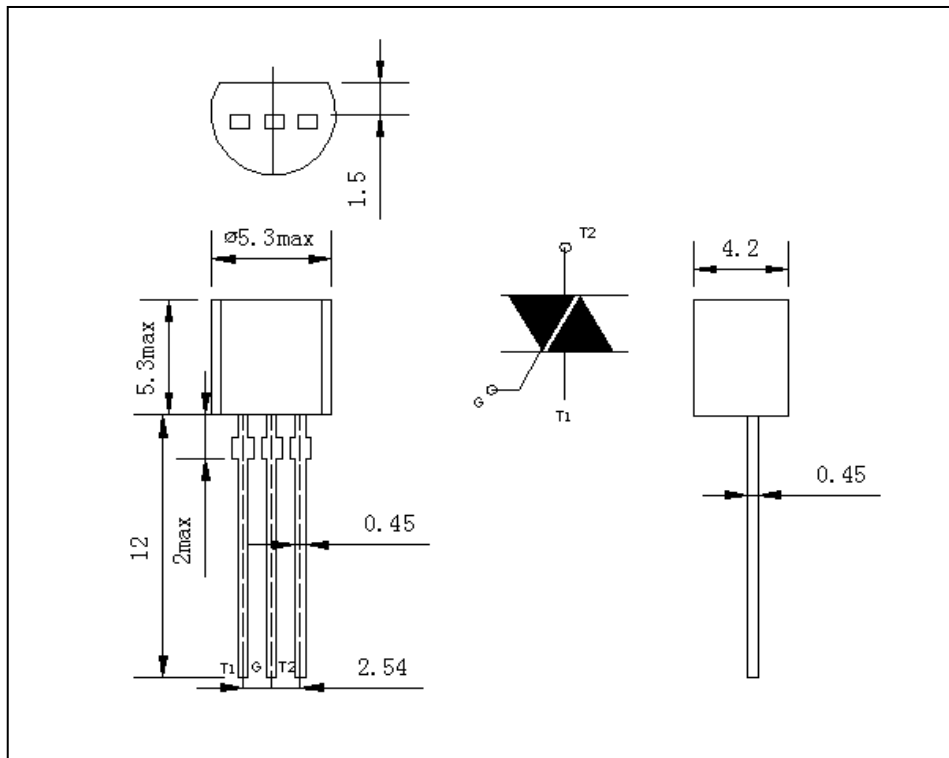
Type	Characteristics	Min	Type	Max		Unit	
				A	B		
I _{GT}	Gate trigger current $V_D=12\text{V}$, $I_T=0.1\text{A}$	----	----	3	5	mA	
							T2+ G+
				T2+ G-	3		5
				T2- G-	3		5
I _L	Latch current $V_D=12\text{V}$, $I_{GT}=0.1\text{A}$	----	----	5	7	mA	
							T2- G+
				T2+ G+	10		
				T2+ G-	10		
I _H	Hold current $V_D=12\text{V}$, $I_{GT}=0.2\text{A}$	----	1.5	5		mA	
				T2- G-	10		
T2- G+	20						
V _{TM}	Peak on-state voltage $I_T=1.1\text{A}$	----	1.35	1.6		V	
V _{GT}	Gate trigger voltage $V_D=12\text{V}$, $R_L=100\Omega$	----	0.7	1.5		V	
V _{GD}	Gate non-trigger voltage, $V_D=12\text{V}$, $R_L=100\Omega$, $T_j=110^\circ\text{C}$	0.2	----	----		V	
I _{DRM} I _{RPM}	$V_D=\text{Rated}$ $V_{DRM}=\text{Rated}$ V_{RRM} $T_j=25^\circ\text{C}$ $T_j=110^\circ\text{C}$			10		$\mu\text{ A}$	
				0.5		mA	

■ Drawing



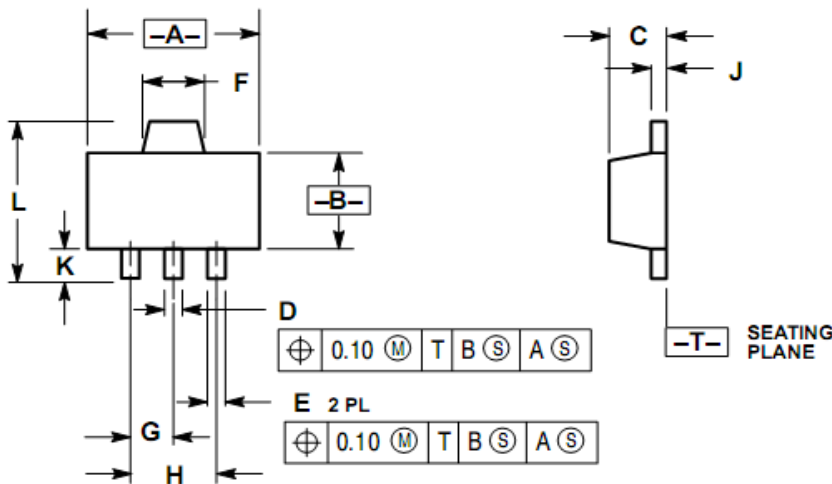
MAC97A6/8---type
 6 ≥ 400V 8 ≥ 600V

■ TO-92 package drawing:



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

■ SOT-89 package drawing:

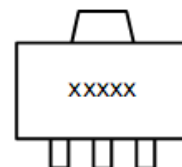


NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. 1213-01 OBSOLETE, NEW STANDARD 1213-02.

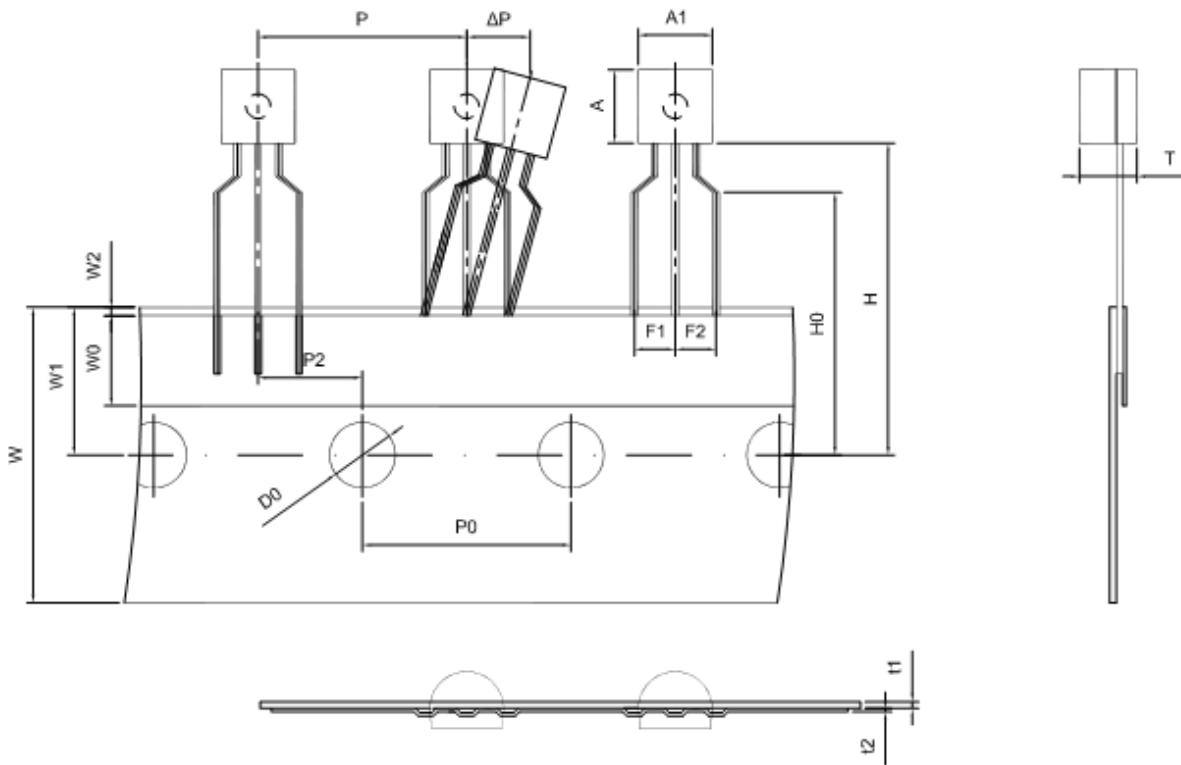
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.40	4.60	0.173	0.181
B	2.40	2.60	0.094	0.102
C	1.40	1.60	0.055	0.063
D	0.37	0.57	0.015	0.022
E	0.32	0.52	0.013	0.020
F	1.50	1.83	0.059	0.072
G	1.50 BSC		0.059 BSC	
H	3.00 BSC		0.118 BSC	
J	0.30	0.50	0.012	0.020
K	0.80	---	0.031	---
L	---	4.25	---	0.167

MARKING DIAGRAM



xxxxx = Specific Device Code

TO-92 PACKAGE TAPING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5±0.2	4.5±0.2	3.5±0.2	12.7±0.3	12.7±0.2	6.35±0.3	2.5±0.3	2.5±0.3	18.0+1.0/-0.5
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0±0.5	9.0±0.5	1.0 MAX.	19.0±1.0	16.0±0.5	4.0±0.5	0.4±0.05	0.2±0.05	0 ± 1.0

