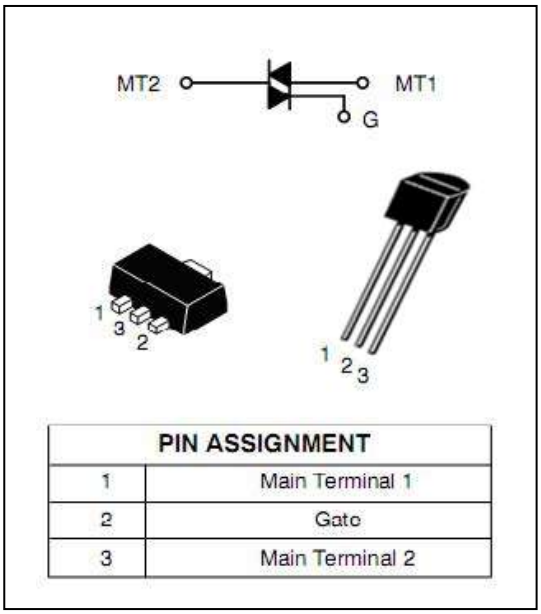
P/N:YZPST-MAC97A6 97A8 Triacs

Feature

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



PIN ASSIGNMENT	
1	Main Terminal 1
2	Gate
3	Main Terminal 2

Typical application

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

Package

- TO-92 SOT-89

Main Specification(Tj=25℃)

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	V
		MAC97A8	600	V
I_{TSM}	Non-repetitive on-state surge current		8.0	A

Limited Specification

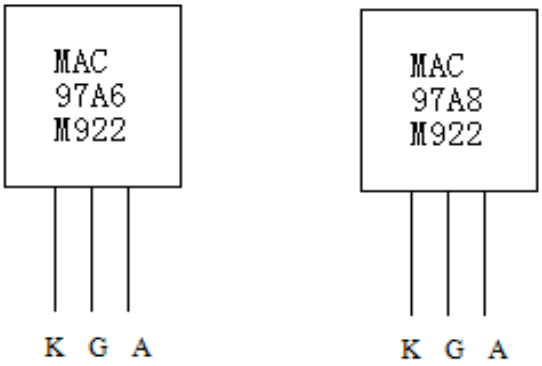
Type	Specification and conditions		value	units
IT(RMS)	Nominal RMS on-state Current T_{lead}≤50℃		0.8	A
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage Tj=25℃/ Repetitive peak reverse voltage Tj=25℃	MAC97A6	400	V
		MAC97A8	600	V
I_{TSM}	Non-repetitive on-state surge current sine 50HZ,one cycle T_C=25℃		9.0	A
I^2t	Fuse current (tp=10ms)		0.45	A^2S
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 A, ,I_G=0.2A, d I_G /dt=0.2A/μs，Tj=110℃)	20	A/μs
Tstg Tj	Storage temperature Junction temperature	-40--+150 -40--+110	℃

■Electric Characteristic(Tj=25℃unless show others temperature)

Type	Characteristics		Min	Type	Max		Unit
					A	**B**	
I_{GT}	Gate trigger current V_D=12V, I_T=0.1A	T2+ G+	----	----	3	5	mA
		T2+ G-	----	----	3	5	
		T2- G-	----	----	3	5	
		T2- G+	----	----	5	7	
I_L	Latch current V_D=12V, I_{GT}=0.1A	T2+ G+	----	----	10		mA
		T2+ G-	----	----	10		
		T2- G-	----	----	10		
		T2- G+	----	----	20		
I_H	Hold current V_D=12V, I_{GT}=0.2A		----	1.5	5		mA
V_{TM}	Peak on-state voltage I_T=1.1A		----	1.35	1.6		V
V_{GT}	Gate trigger voltage V_D=12V, R_L=100Ω		----	0.7	1.5		V
V_{GD}	Gate non-trigger voltage, V_D=12V, R_L=100Ω , Tj=110℃		0.2	----	----		V
I_{DRM} I_{RRM}	V_D=Rated V_{DRM}=Rated V_{RRM}	Tj=25℃ Tj=110℃			10 0.5		μA mA

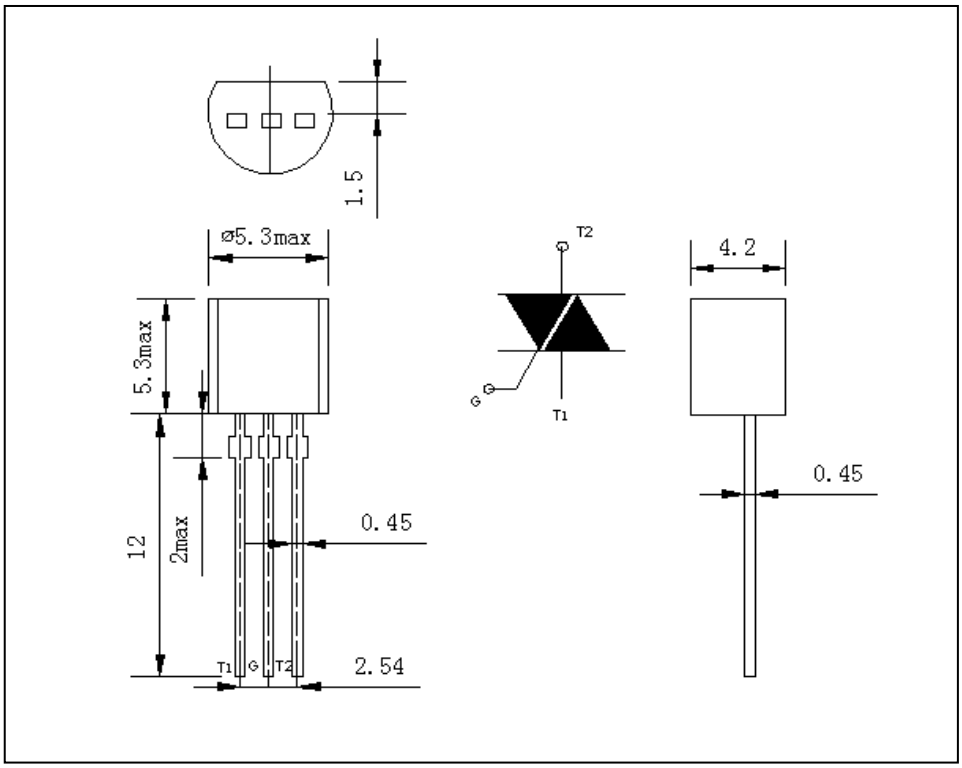
Drawing



MAC97A6/8---type

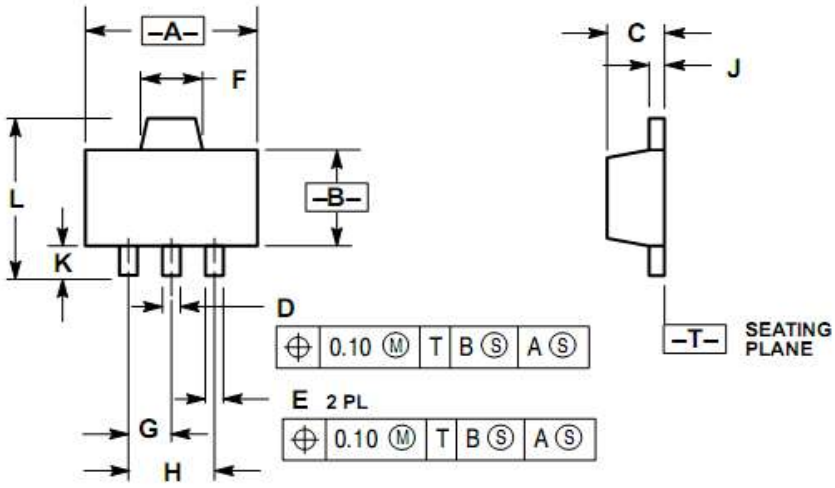
6 ⩾400V 8 ⩾600V

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:



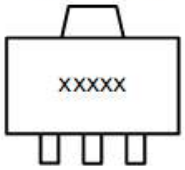
NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. 1213-01 OBSOLETE, NEW STANDARD 1213-02.

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

STYLE 1:
PIN 1. EMITTER
2. COLLECTOR
3. BASE

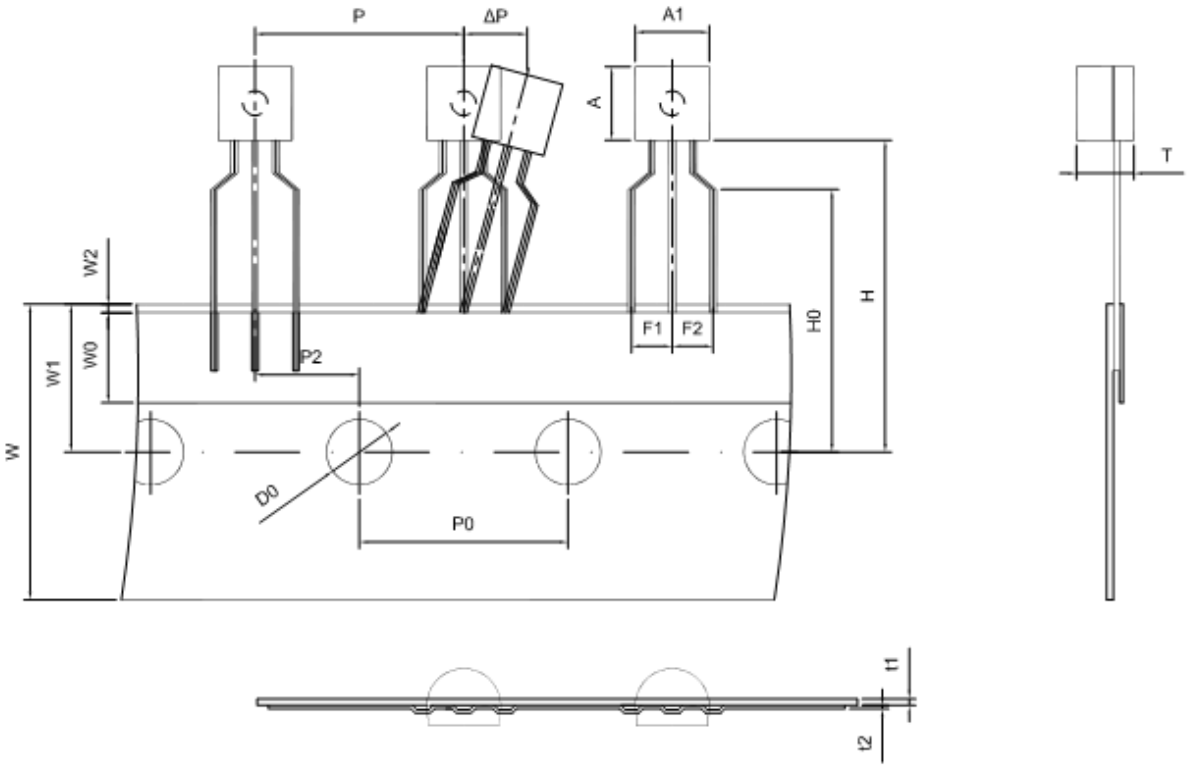
STYLE 2:
PIN 1. BASE
2. COLLECTOR
3. EMITTER

MARKING DIAGRAM



xxxxx = Specific Device Code

TO-92 PACKAGE TAPEING DIMENSION



Dimiensions 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