

TO-92 Plastic-Encapsulate Transistors

STB1277 TRANSISTOR (PNP)

FEATURES

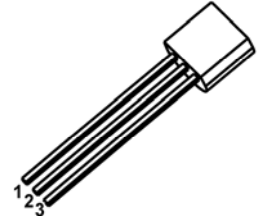
- Audio power amplifier
- High current application
- High current : $I_C = -2A$
- Complementary pair with STD1862

MAXIMUM RATINGS ($T_a = 25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30 V	
V_{CEO}	Collector-Emitter Voltage	-30 V	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2	A
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

TO-92

1. EMITTER
2. COLLECTOR
3. BASE



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100\mu A, I_E = 0$ -30				V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -1mA, I_B = 0$ -30				V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -1mA, I_C = 0$ -5				V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -2V, I_C = -500mA$	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -0.2A$			-0.8	V
Base-emitter on voltage	$V_{BE(on)}$	$V_{CE} = -2V, I_C = -500mA$			-1	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -50mA$		170		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		48		pF

CLASSIFICATION h_{FE}

Rank	O	Y
Range	100-200	160-320

TO-92 Package Outline Dimensions



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	4.300	4.700	0.169	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

TO-92 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

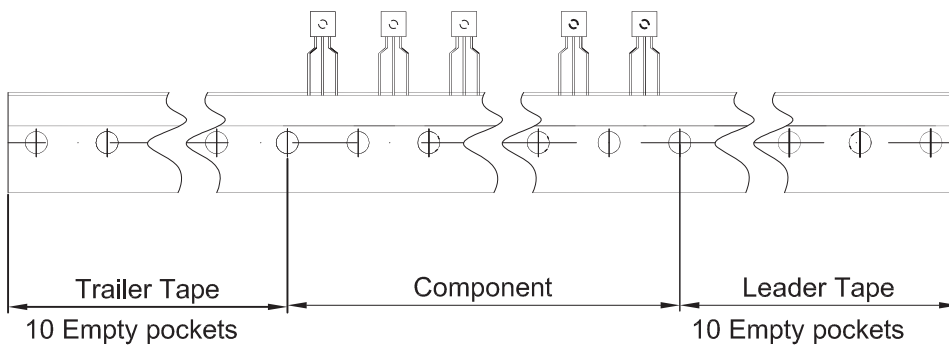
NOTICE

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TO-92 PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250