

Pb Free Plating Product

## 2SA1943



## 150 Watt Silicon PNP Power Transistors

**DESCRIPTION**

- With TO-3PL package
- Complement to type 2SC5200

**APPLICATIONS**

- Power amplifier applications
- Recommended for 100W high fidelity audio frequency amplifier output stage

**PINNING**

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

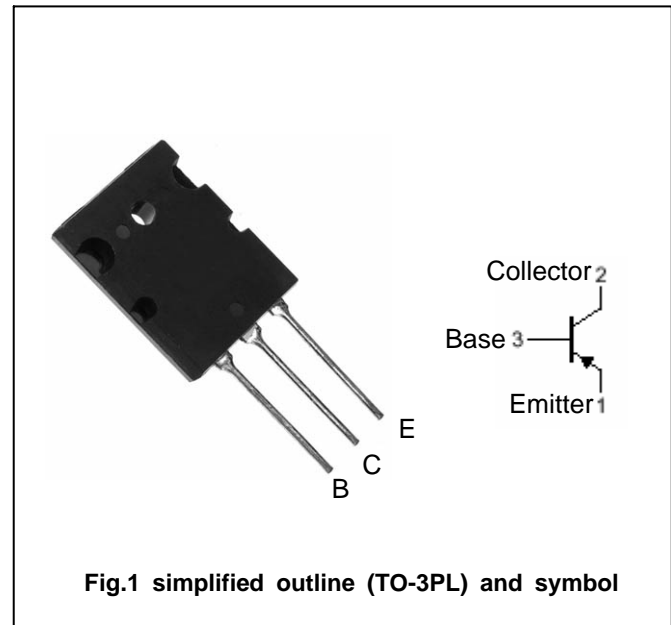


Fig.1 simplified outline (TO-3PL) and symbol

**Absolute maximum ratings(Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-230	V
$V_{CEO}$	Collector-emitter voltage	Open base	-230	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-15	A
$I_B$	Base current		-1.5	A
$P_C$	Collector power dissipation	$T_C=25$	150	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-50mA ; I <sub>B</sub> =0	-230			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-8A I <sub>B</sub> =-0.8A			-3.0	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-7A ; V <sub>CE</sub> =-5V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-230V; I <sub>E</sub> =0			-5	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-5	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V	55		160	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-7A ; V <sub>CE</sub> =-5V	35			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V		30		MHz
C <sub>OB</sub>	Collector output capacitance	f=1MHz; V <sub>CB</sub> =-10V		360		pF

### ◆ h<sub>FE-1</sub> classifications

R	O
55-110	80-160

### Mechanical Dimensions

## TO-3PL

NOTES:

- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: MILLIMETER.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	28.0	29.0	1.102	1.142
B	19.3	20.3	0.760	0.800
C	4.7	5.3	0.185	0.209
D	0.93	1.48	0.037	0.058
E	1.9	2.1	0.075	0.083
F	2.2	2.4	0.087	0.102
G	5.45 BSC		0.215 BSC	
H	2.6	3.0	0.102	0.118
J	0.43	0.78	0.017	0.031
K	17.6	18.8	0.693	0.740
L	11.2 REF		0.411 REF	
N	4.35 REF		0.172 REF	
P	2.2	2.6	0.087	0.102
Q	3.1	3.5	0.122	0.137
R	2.25 REF		0.089 REF	
U	6.3 REF		0.248 REF	
W	2.8	3.2	0.110	0.125

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