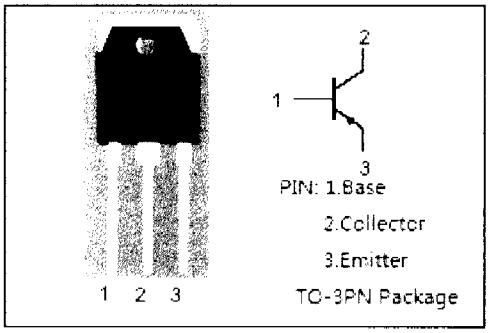
New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

Silicon PNP Power Transistor

2SA1104



DESCRIPTION

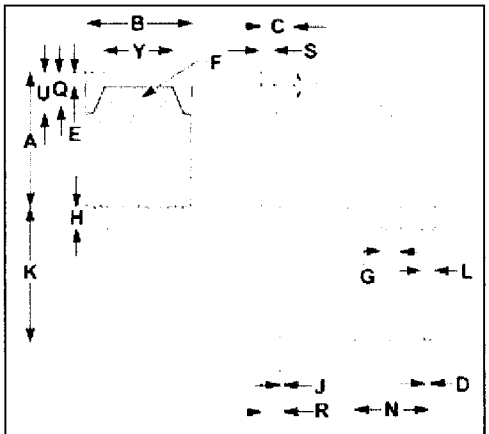
- Collector-Emitter Breakdown Voltage-
  $V_{(BR)CEO}$= -120V(Min)
- Good Linearity of h_{FE}
- High Power Dissipation

APPLICATIONS

- Designed for audio power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-8	A
I_B	Base Current-Continuous	-3	A
P_C	Collector Power Dissipation @ T_C=25℃	80	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -50mA; I_B= 0	-120			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -3A; I_B= -0.3A			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -120V; I_E= 0			-10	μ A
I_{EBO}	Emitter Cutoff Current	V_{EB}= -6V; I_C= 0			-10	μ A
h_{FE}	DC Current Gain	I_C= -3A; V_{CE}= -4V	50		180	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V; f= 1.0MHz		300		pF
f_T	Current-Gain—Bandwidth Product	I_E= 0.5A; V_{CE}= -12V		20		MHz

◆ **h_{FE} Classifications**

O	P	Y
50-100	70-140	90-180