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

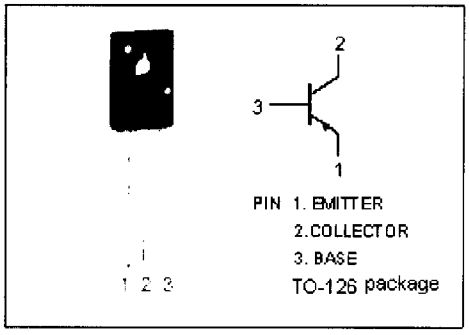
Silicon PNP Power Transistor — 2SA1507

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
  $V_{(BR)CEO}$= -160V (Min)
- Large Current Capacity
- Complement to Type 2SC3902

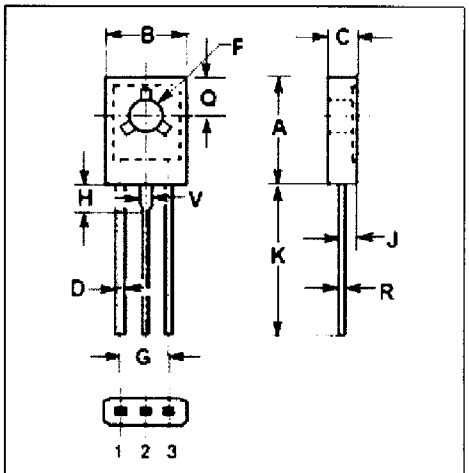
APPLICATIONS

- Designed for use in color TV audio output, converters and inverters.



ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-180	V
V_{CEO}	Collector-Emitter Voltage	-160	V
V_{EBO}	Emitter-Base Voltage	-6.0	V
I_C	Collector Current-Continuous	-1.5	A
I_{CM}	Collector Current-Peak	-2.5	A
P_C	Collector Power Dissipation @ T_a=25℃	1.5	W
	Total Power Dissipation @ T_C=25℃	10	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= -10μ A; I_E= 0	180			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -1mA; R_{BE}= ∞	160			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= -10μ A; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -500mA; I_B= -50mA			-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -500mA; I_B= -50mA			-1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -120V; I_E= 0			-0.1	μ A
I_{EBO}	Emitter Cutoff Current	V_{EB}= -4V; I_C= 0			-0.1	μ A
h_{FE-1}	DC Current Gain	I_C= -100mA; V_{CE}= -5V	100		400	
h_{FE-2}	DC Current Gain	I_C= -10mA; V_{CE}= -5V	90			
f_T	Current-Gain—Bandwidth Product	I_C= -50mA ; V_{CE}= -10V		120		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V; f= 1.0MHz		22		pF

Switching Times

t_{on}	Turn-on Time	I_C= -0.7A ,R_L= 14.3Ω , I_{B1}= -I_{B2}= -70mA,V_{CC}= -100V; P_W= 20μ s; Duty Cycle≤1%		0.04		μ s
t_{stg}	Storage Time			0.7		μ s
t_f	Fall Time			0.04		μ s

◆ **h_{FE-1} Classifications**

R	S	T
100-200	140-280	200-400