

Silicon PNP Power Transistor

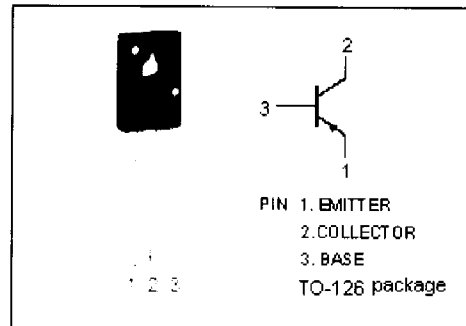
2SA1357

DESCRIPTION

- High Collector Current- $I_C = -5.0A$
- DC Current Gain-
 $h_{FE} = 70(\text{Min}) @ I_C = -4A$
- Low Saturation Voltage
 $V_{CE(\text{sat})} = -1.0V(\text{Max}) @ I_C = -4A$

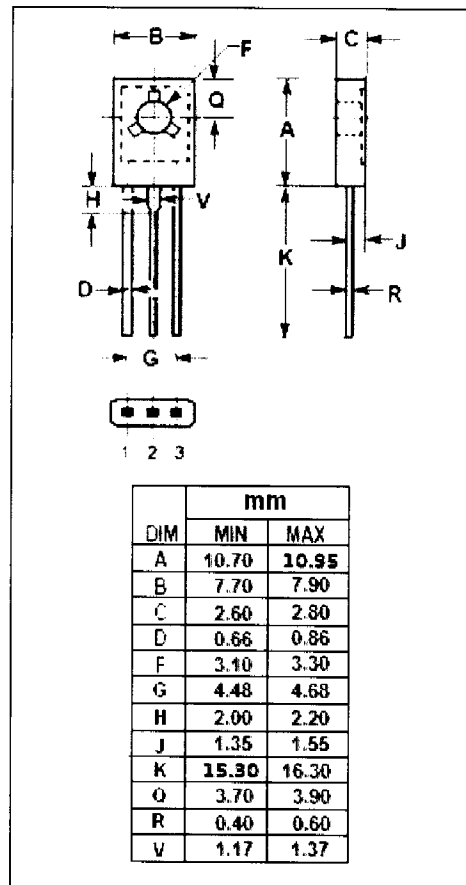
APPLICATIONS

- Strobe flash applications.
- Audio power amplifier applications.



ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-35	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current-Continuous	-5	A
I_{CP}	Collector Current-Pulse	-8	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1.5	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Silicon PNP Power Transistor

2SA1357

ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}; I_B = 0$	-20			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.1\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -4\text{A}; V_{CE} = -2\text{V}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -35\text{V}; I_E = 0$			-0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -8\text{V}; I_C = 0$			-0.1	μA
h_{FE-1}	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -2\text{V}$	100		320	
h_{FE-2}	DC Current Gain	$I_C = -4\text{A}; V_{CE} = -2\text{V}$	70			
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -2\text{V}$		170		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}, f_{test} = 1\text{MHz}$		62		pF

◆ h_{FE-1} Classifications

O	Y
100-200	160-320