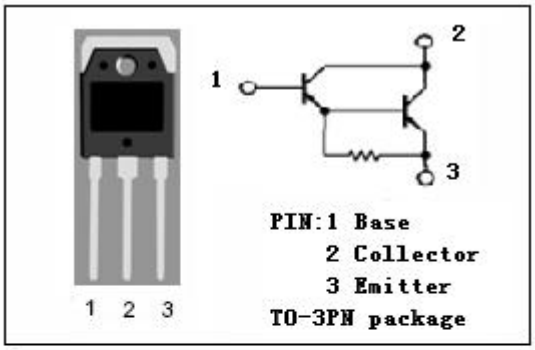
isc Silicon PNP Darlington Power Transistor — 2SB1531

DESCRIPTION

- High DC Current Gain-
  : h_{FE}= 5000(Min)@I_C= -5A
- Low-Collector Saturation Voltage-
  : $V_{CE(sat)}$= -2.5V(Max.)@I_C= -5A
- Complement to Type 2SD2340
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

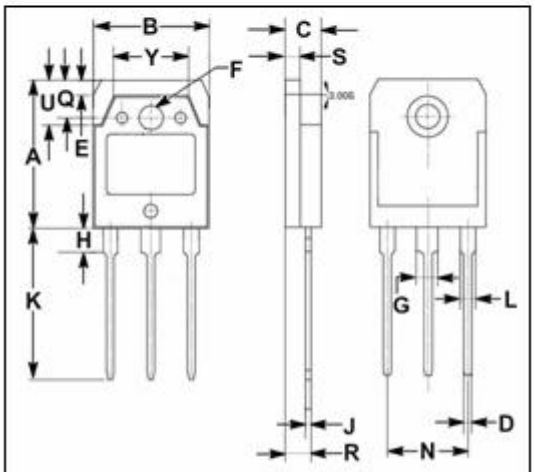


APPLICATIONS

- Designed for power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-130	V
V_{CEO}	Collector-Emitter Voltage	-130	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-6	A
P_C	Collector Power Dissipation @ T_C=25℃	50	W
	Collector Power Dissipation @ T_a=25℃	3	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.10
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	20.00	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	6.10
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -30mA; I_B= 0	-130			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -5A; I_B= -5mA			-2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -5A; I_B= -5mA			-3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -130V; I_E= 0			-100	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= -130V; I_B= 0			-100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-100	μA
h_{FE-1}	DC Current Gain	I_C= -1A; V_{CE}= -5V	2000			
h_{FE-2}	DC Current Gain	I_C= -5A; V_{CE}= -5V	5000		30000	
f_T	Current-Gain—Bandwidth Product	I_C= -0.5A; V_{CE}= -10V		20		MHz

◆ **h_{FE-2} Classifications**

Q	P
5000-15000	8000-30000