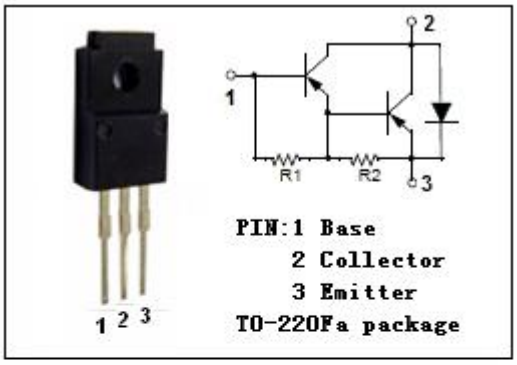
isc Silicon PNP Darlington Power Transistor 2SB1551

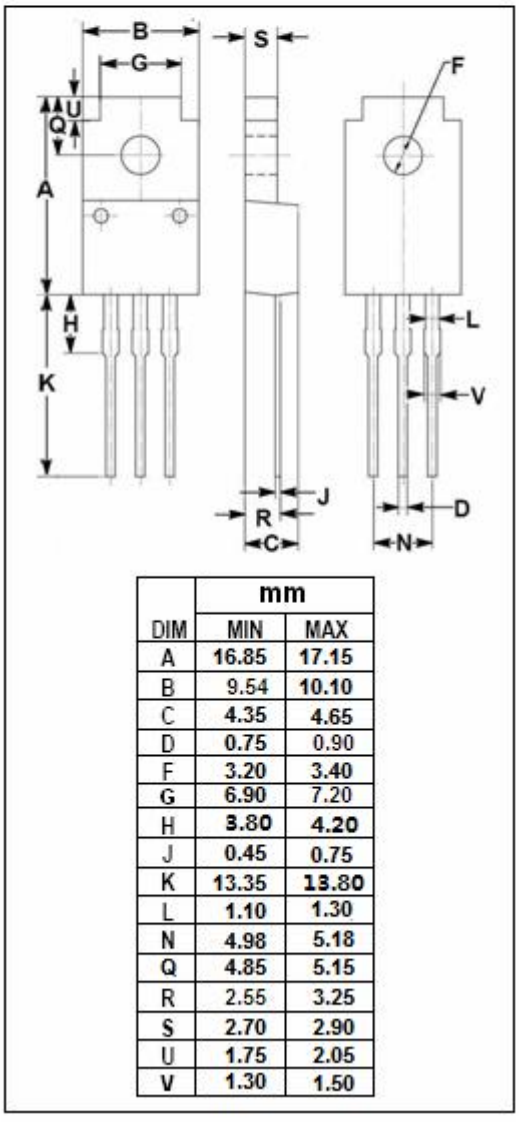
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= -80V(Min)
- High DC Current Gain-
- Built-in resistor between base and emitter
- Built-in damper diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for power amplifier applications.



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	3.80	4.20
J	0.45	0.75
K	13.35	13.80
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Pulse	-20	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	30	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -5mA; I_B= 0	-80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= -50 μA; I_E= 0	-80			V
$V_{CE(sat)}$★1	Collector-Emitter Saturation Voltage	I_C= -3A; I_B= -6mA			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -80V; I_E= 0			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-3	mA
h_{FE}	DC Current Gain	I_C= -5A; V_{CE}= -3V	1000		20000	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V; f_{test}= 1MHz		90		pF
f_T★2	Current-Gain—Bandwidth Product	I_E= 0.5A; V_{CE}= -5V; f_{test}= 10MHz		12		MHz

★1:Measured using pulse current.

★2:Transition frequency of the device.