

isc Silicon PNP Darlington Power Transistor
2SB1551
DESCRIPTION

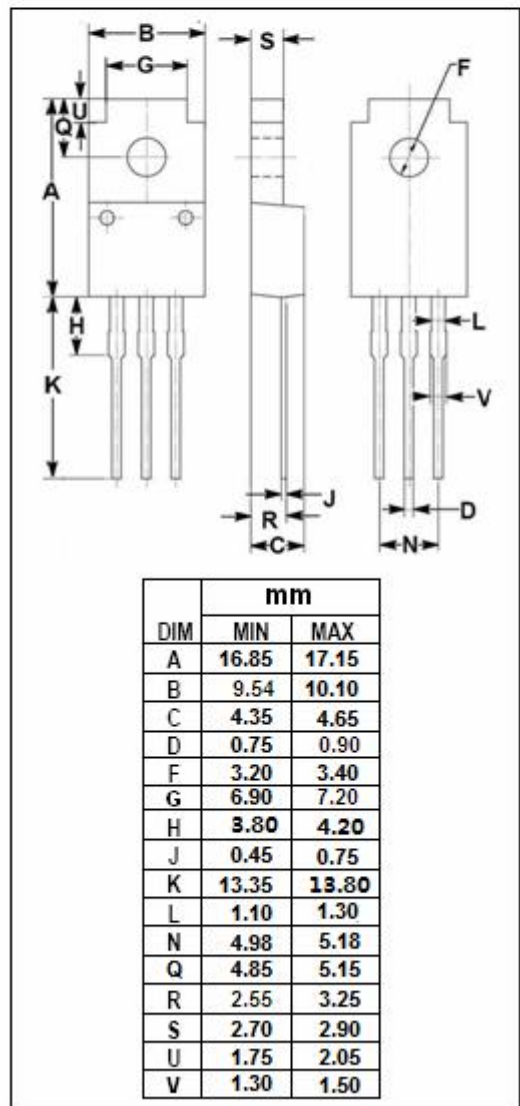
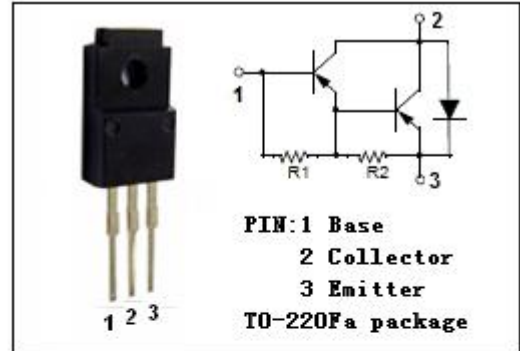
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -80V(\text{Min})$
- High DC Current Gain-
- Built-in resistor between base and emitter
- Built-in damper diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

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 @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	30	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon PNP Darlington Power Transistor**2SB1551****ELECTRICAL CHARACTERISTICS**T_j=25°C 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.

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