



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DMBT8550

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

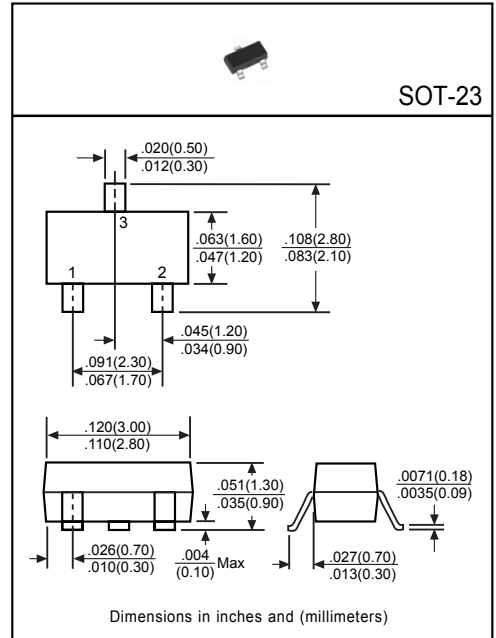
Designed for general purpose amplifier applications.

Pinning

- 1 = Base
- 2 = Emitter
- 3 = Collector

Absolute Maximum Ratings(T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-40	V
Collector-Emitter Voltage	V <sub>CE0</sub>	-25	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current	I <sub>C</sub>	-800	mA
Total Power Dissipation	P <sub>D</sub>	300	mW
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	-40	-	-	V	I <sub>C</sub> =-100μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CE0</sub>	-25	-	-	V	I <sub>C</sub> =-0.1mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	-5	-	-	V	I <sub>E</sub> =-100μA, I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CB0</sub>	-	-	-1	μA	V <sub>CB</sub> =-40V, I <sub>E</sub> =0
Emitter Cutoff Current	I <sub>EB0</sub>	-	-	-0.1	μA	V <sub>EB</sub> =-5V, I <sub>C</sub> =0
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)</sub>	-	-	-0.5	V	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA
Base-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>BE(sat)</sub>	-	-	-1.2	V	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA
DC Current Gain <sup>(1)</sup>	h <sub>FE</sub>	120	-	400	-	I <sub>C</sub> =-100mA, V <sub>CE</sub> =-1V
Transition Frequency	f <sub>T</sub>	100	-	-	MHz	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-10V, f=30MHz

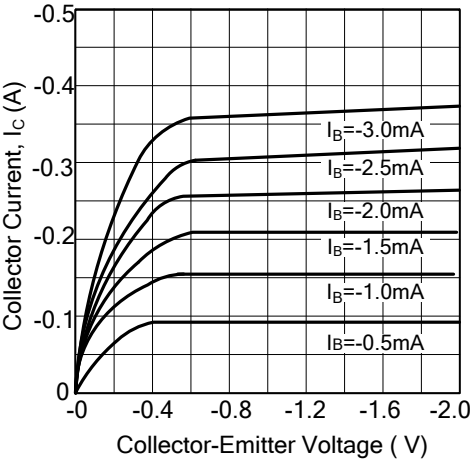
(1)Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2% MARKING:Y2

Classification of h<sub>FE</sub>

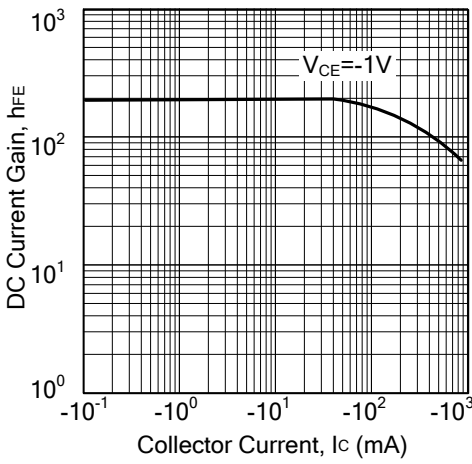
Rank	C	D	E
Range	120~200	200-350	300-400

Electrical Characteristic Curves

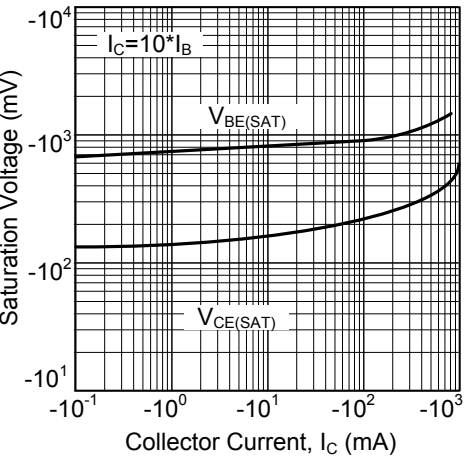
Static Characteristics



DC Current Gain



Saturation Voltage



Current Gain-Bandwidth Product

