



DC COMPONENTS CO., LTD.
DISCRETE SEMICONDUCTORS

DMBT3906

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

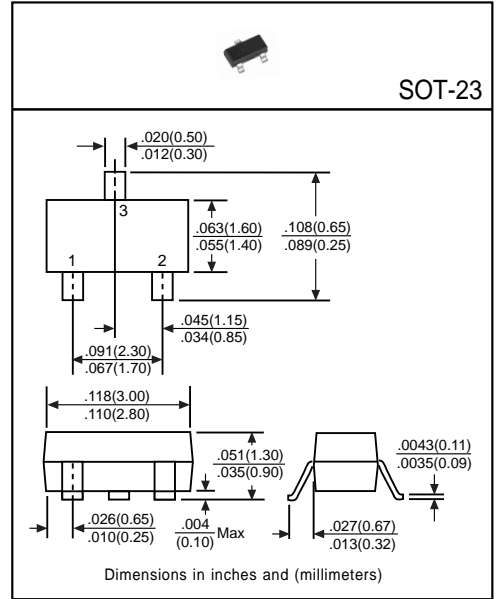
Designed for general purpose switching and amplifier applications.

Pinning

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

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-200	mA
Total Power Dissipation	P _D	225	mW
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-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 _{CB0}	-40	-	-	V	I _C =-10μA
Collector-Emitter Breakdown Voltage	BV _{CEO}	-40	-	-	V	I _C =-1mA
Emitter-Base Breakdown Voltage	BV _{EB0}	-5	-	-	V	I _E =-10μA
Collector Cutoff Current	I _{CX}	-	-	-50	nA	V _{CE} =-30V, V _{BE} =-3V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}	-	-	-250	mV	I _C =-10mA, I _B =-1mA
	V _{CE(sat)2}	-	-200	-400	mV	I _C =-50mA, I _B =-5mA
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)1}	-650	-	-850	mV	I _C =-10mA, I _B =-1mA
	V _{BE(sat)2}	-	-840	-950	mV	I _C =-50mA, I _B =-5mA
DC Current Gain ⁽¹⁾	h _{FE1}	60	-	-	-	I _C =-0.1mA, V _{CE} =-1V
	h _{FE2}	80	-	-	-	I _C =-1mA, V _{CE} =-1V
	h _{FE3}	100	-	300	-	I _C =-10mA, V _{CE} =-1V
	h _{FE4}	60	-	-	-	I _C =-50mA, V _{CE} =-1V
	h _{FE5}	30	-	-	-	I _C =-100mA, V _{CE} =-1V
Transition Frequency	f _T	250	-	-	MHz	I _C =-10mA, V _{CE} =20V, f=100MHz
Output Capacitance	C _{ob}	-	-	4.5	pF	V _{CB} =-5V, f=1MHz, I _E =0

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