



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DMBT2907A

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

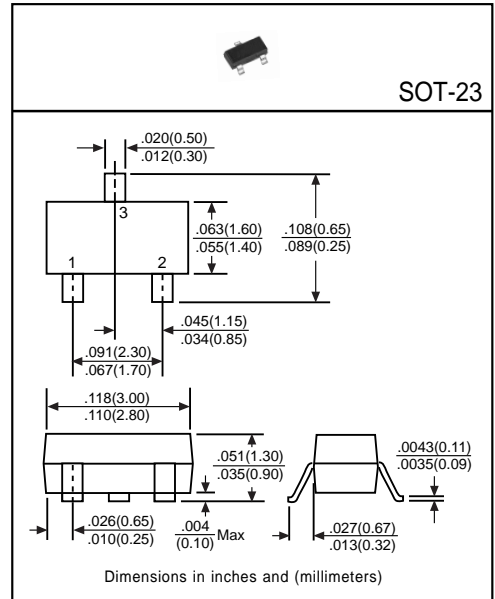
Designed for general purpose switching and amplifier applications.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-60	V
Collector-Emitter Voltage	V _{CE0}	-60	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-600	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}	-60	-	-	V	I _C =-10μA
Collector-Emitter Breakdown Voltage	BV _{CE0}	-60	-	-	V	I _C =-10mA
Emitter-Base Breakdown Voltage	BV _{EB0}	-5	-	-	V	I _E =-10μA
Collector Cutoff Current	I _{CBO}	-	-	-20	nA	V _{CB} =-50V
	I _{CEX}	-	-	-50	nA	V _{CE} =-30V, V _{EB(off)} =-0.5V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}	-	-0.2	-0.4	V	I _C =-150mA, I _B =-15mA
	V _{CE(sat)2}	-	-0.5	-1.6	V	I _C =-500mA, I _B =-50mA
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)1}	-	-	-1.3	V	I _C =-150mA, I _B =-15mA
	V _{BE(sat)2}	-	-	-2.6	V	I _C =-500mA, I _B =-50mA
DC Current Gain ⁽¹⁾	h _{FE1}	75	-	-	-	I _C =-0.1mA, V _{CE} =-10V
	h _{FE2}	100	-	-	-	I _C =-1mA, V _{CE} =-10V
	h _{FE3}	100	-	-	-	I _C =-10mA, V _{CE} =-10V
	h _{FE4}	100	180	300	-	I _C =-150mA, V _{CE} =-10V
	h _{FE5}	50	-	-	-	I _C =-500mA, V _{CE} =-10V
Transition Frequency	f _T	200	-	-	MHz	I _C =-50mA, V _{CB} =-20V, f=100MHz
Output Capacitance	C _{ob}	-	-	8	pF	V _{CB} =-10V, f=1MHz, I _E =0

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

Electrical Characteristic Curves

