DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DMBT5401

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

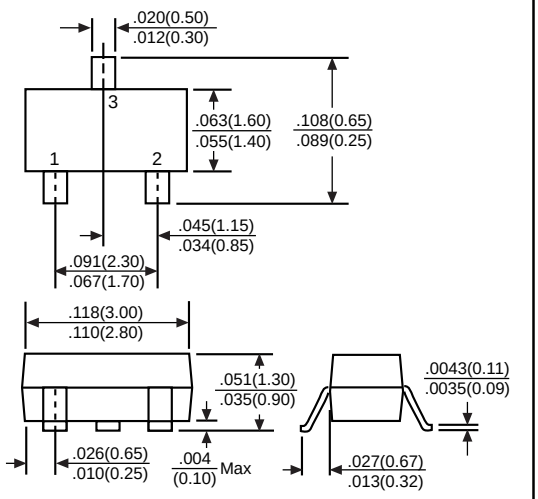
Description

Designed for general purpose applications requiring high breakdown voltage.

Pinning

1 = Base
2 = Emitter
3 = Collector

SOT-23



Dimensions in inches and (millimeters)

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	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 Volatge	BV_{CBO}	-160	-	-	V	I_C=-100μA
Collector-Emitter Breakdown Voltage	BV_{CEO}	-150	-	-	V	I_C=-1mA
Emitter-Base Breakdown Volatge	BV_{EBO}	-5	-	-	V	I_E=-10μA
Collector Cutoff Current	I_{CBO}	-	-	-50	nA	V_{CB}=-120V
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)1}$	-	-	-0.2	V	I_C=-10mA, I_B=-1mA
	$V_{CE(sat)2}$	-	-	-0.5	V	I_C=-50mA, I_B=-5mA
Base-Emitter Saturation Voltage(1)	$V_{BE(sat)1}$	-	-	-1	V	I_C=-10mA, I_B=-1mA
	$V_{BE(sat)2}$	-	-	-1	V	I_C=-50mA, I_B=-5mA
DC Current Gain(1)	h_{FE1}	50	-	-	-	I_C=-1mA, V_{CE}=-5V
	h_{FE2}	60	-	240	-	I_C=-10mA, V_{CE}=-5V
	h_{FE3}	50	-	-	-	I_C=-50mA, V_{CE}=-5V
Transition Frequency	f_T	100	-	300	MHz	I_C=-10mA, V_{CE}=-10V, f=100MHz
Output Capacitance	C_{ob}	-	-	6	pF	V_{CB}=-10V, f=1MHz

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