DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

PXT8050

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

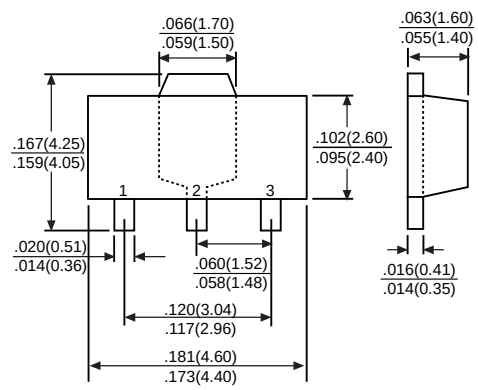
Description

Designed for general purpose amplifier applications.

Pinning

1 = Base
2 = Collector
3 = Emitter

SOT-89



Dimensions in inches and (millimeters)

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1500	mA
Total Power Dissipation	P_D	300	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}	40	-	-	V	I_C= 100 μA,ɨ=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	25	-	-	V	I_C= 0.1mA,IB=0
Emitter-Base Breakdown Volatge	BV_{EBO}	5	-	-	V	I_E=1 00μA,IC=0
Collector Cutoff Current	I_{CBO}	-	-	1	μA	V_{CB}= 40V,IE=0
Emitter Cutoff Current	I_{EBO}	-	-	0.1	μA	V_{EB}= 5V,IC=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)}$	-	-	0.5	V	I_C= 800mA, I_B= 80mA
Base-Emitter Saturation Voltage(1)	$V_{BE(sat)}$	-	-	1.2	V	I_C= 800mA, I_B= 80mA
DC Current Gain(1)	h_{FE}	120	-	400	-	I_C= 100mA, V_{CE}=1V
Transition Frequency	f_T	100	-	-	MHz	I_C= 50mA, V_{CE}=10V, f= 30MHz

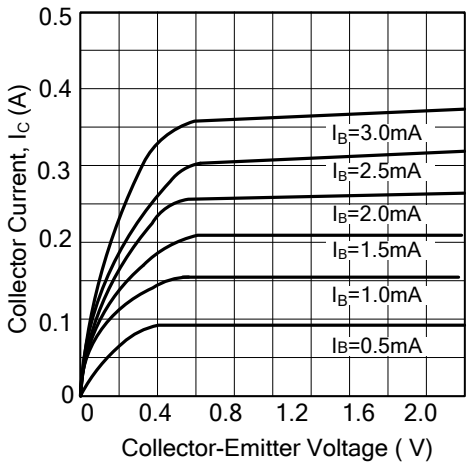
(1)Pulse Test: Pulse Width ≦380μs, Duty Cycle ≦2% Marking: Y1

Classification of h_{FE}

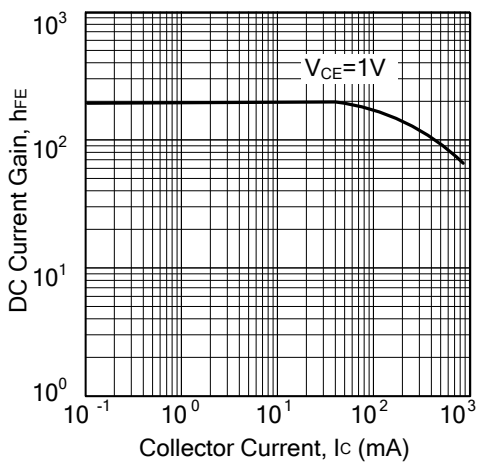
Rank	C	D	E
Range	120~200	200-350	300-400

Electrical Characteristic Curves

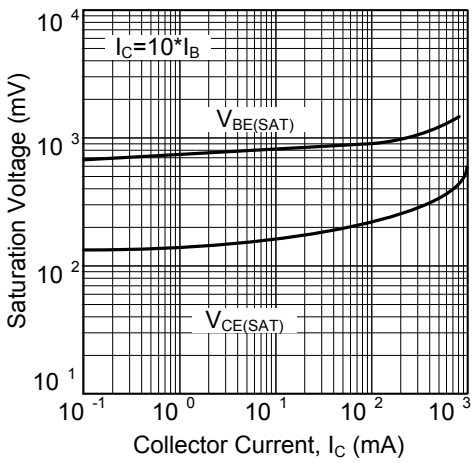
Static Characteristics



DC Current Gain



Saturation Voltage



Current Gain-Bandwidth Product