DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

PN2222

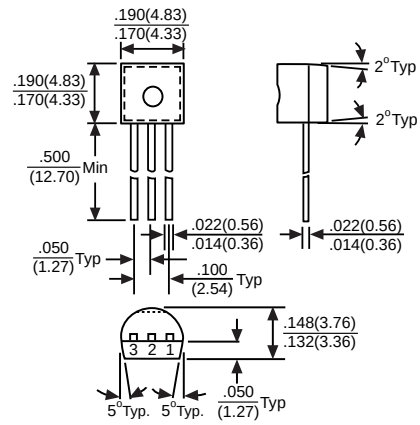
TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for general purpose amplifier and high-speed, medium-power switching applications.



TO-92



Dimensions in inches and (millimeters)

Pinning

1 = Emitter
2 = Base
3 = Collector

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	600	mA
Total Power Dissipation	P_D	625	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}	60	-	-	V	I_C=10μA, I_E=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	30	-	-	V	I_C=10mA, I_B=0
Emitter-Base Breakdown Volatge	BV_{EBO}	5	-	-	V	I_E=10μA, I_C=0
Collector Cutoff Current	I_{CBO}	-	-	10	nA	V_{CB}=50V, I_E=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)1}$	-	-	0.4	V	I_C=150mA, I_B=15mA
	$V_{CE(sat)2}$	-	-	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}	35	-	-	-	I_C=0.1mA, V_{CE}=10V
	h_{FE2}	50	-	-	-	I_C=1mA, V_{CE}=10V
	h_{FE3}	75	-	-	-	I_C=10mA, V_{CE}=10V
	h_{FE4}	100	-	300	-	I_C=150mA, V_{CE}=10V
	h_{FE5}	30	-	-	-	I_C=500mA, V_{CE}=10V
Transition Frequency	f_T	250	-	-	MHz	I_C=20mA, V_{CE}=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%

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