DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

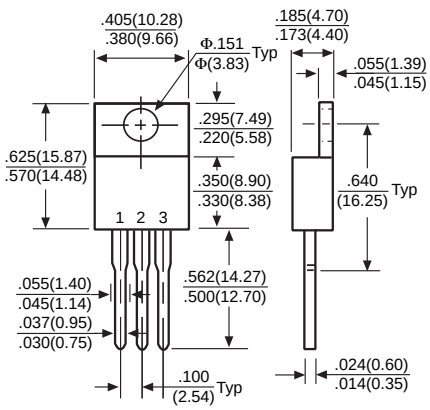
TIP41C

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for use in general purpose amplifier and switching applications.

TO-220AB



Dimensions in inches and (millimeters)

Pinning

1 = Base
2 = Collector
3 = Emitter

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Collector Current	I_C	6	A
Total Power Dissipation(T_C=25°C)	P_D	65	W
Total Power Dissipation	P_D	2	W
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}	100	-	-	V	I_C=1mA, I_E=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	100	-	-	V	I_C=30mA, I_B=0
Collector Cutoff Current	I_{CES}	-	-	400	μA	V_{CE}=100V, I_B=0
	I_{CEO}	-	-	700	μA	V_{CE}=60V, I_B=0
Emitter Cutoff Current	I_{EBO}	-	-	1	mA	V_{EB}=5V, I_C=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)}$	-	-	1.5	V	I_C=6A, I_B=0.6A
Base-Emitter On Voltage(1)	$V_{BE(on)}$	-	-	2	V	I_C=6A, V_{CE}=4V
DC Current Gain(1)	h_{FE1}	30	-	-	-	I_C=0.3A, V_{CE}=4V
	h_{FE2}	15	-	75	-	I_C=3A, V_{CE}=4V
Transition Frequency	f_T	3	-	-	MHz	I_C=0.5A, V_{CE}=10V, f=1MHz

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

Classification of h_{FE2}

Rank	A	B
Range	15~50	40~75