DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

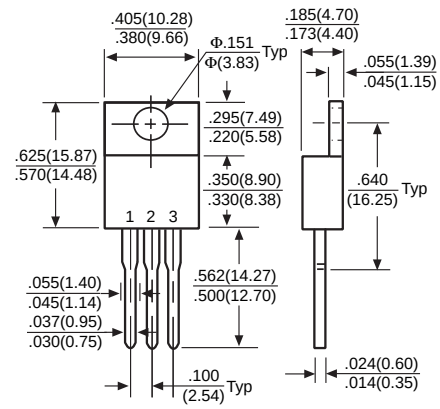
MJE3055T

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for 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}	70	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	10	A
Base Current	I_B	6	A
Total Power Dissipation(T_C=25°C)	P_D	75	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}	70	-	-	V	I_C=10mA, I_E=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	60	-	-	V	I_C=200mA, I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	5	-	-	V	I_E=10mA, I_C=0
Collector Cutoff Current	I_{CBO}	-	-	1	mA	V_{CB}=70V, I_E=0
	I_{CEX}	-	-	1	mA	V_{CE}=70V, $V_{EB(off)}$=1.5V
	I_{CEO}	-	-	0.7	mA	V_{CE}=30V, I_B=0
Emitter Cutoff Current	I_{EBO}	-	-	5	mA	V_{EB}=5V, I_C=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)1}$	-	-	1.1	V	I_C=4A, I_B=400mA
	$V_{CE(sat)2}$	-	-	8	V	I_C=10A, I_B=3.3A
Base-Emitter On Voltage(1)	$V_{BE(on)}$	-	-	1.8	V	I_C=4A, V_{CE}=4V
DC Current Gain(1)	h_{FE1}	20	-	100	-	I_C=4A, V_{CE}=4V
	h_{FE2}	5	-	-	-	I_C=10A, V_{CE}=4V
Transition Frequency	f_T	2	-	-	MHz	I_C=500mA, V_{CE}=10V, f=0.5MHz

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