



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

MJE3055T

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

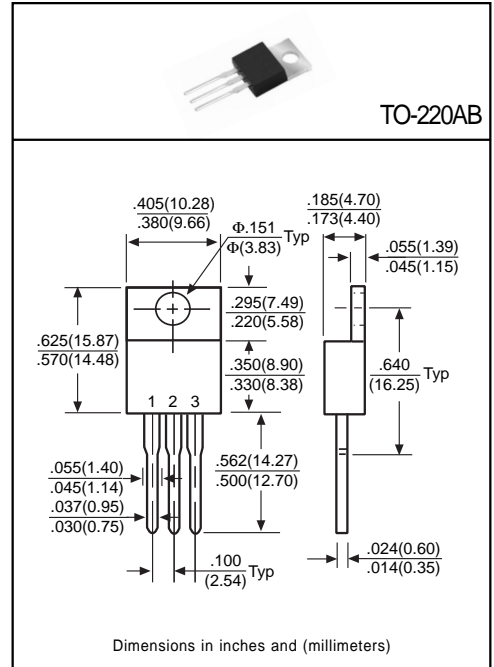
Designed for general purpose amplifier and switching applications.

Pinning

- 1 = Base
- 2 = Collector
- 3 = Emitter

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	70	V
Collector-Emitter Voltage	V _{CE0}	60	V
Emitter-Base Voltage	V _{EB0}	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 Voltage	BV _{CB0}	70	-	-	V	I _C =10mA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	60	-	-	V	I _C =200mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	5	-	-	V	I _E =10mA, I _C =0
Collector Cutoff Current	I _{CB0}	-	-	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%