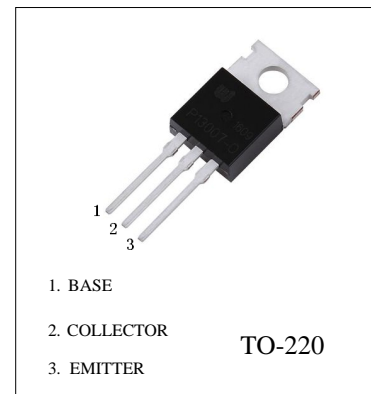
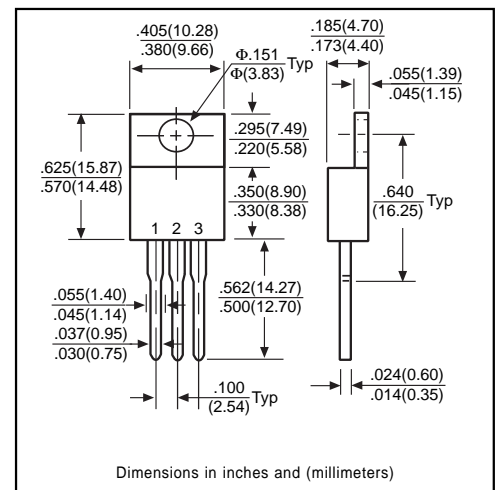


FEATURES

Medium Power Complementary Silicon Transistors

MJE13007 (NPN)

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V _{CEX}	700	V
	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	9	V
Collector Current	I _C	8	A
Base Current	I _B	4	A
Total Power Dissipation(T _c =25°C)	P _D	80	W
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 to +150	°C


ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Emitter Breakdown Voltage	BV _{CEX}	700			V	I _C =1mA, V _{BE(off)} =1.5V
	BV _{CEO}	400			V	I _C =10mA
Collector Cutoff Current	I _{CX}			0.1	mA	V _{CE} =700V, V _{BE(off)} =1.5V
Emitter Cutoff Current	I _{EBO}			0.1	mA	V _{EB} =9V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}			1	V	I _C =2A, I _B =400mA
	V _{CE(sat)2}			2	V	I _C =5A, I _B =1A
	V _{CE(sat)3}			3	V	I _C =8A, I _B =2A
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)1}			1.2	V	I _C =2A, I _B =400mA
	V _{BE(sat)2}			1.6	V	I _C =5A, I _B =1A
DC Current Gain ⁽¹⁾	h _{FE1}	10		40	-	I _C =2A, V _{CE} =5V
	h _{FE2}	10		30	-	I _C =5A, V _{CE} =5V

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