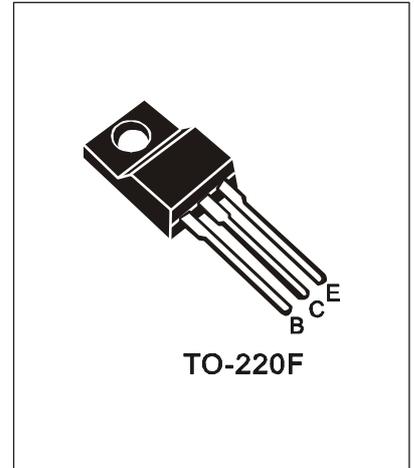


MJE13007

NPN EPITAXIAL PLANAR TRANSISTOR

Description

- High Voltage, High Speed Power Switch
- Switch Regulators
- PWM Inverters and Motor Controls
- Solenoid and Relay Drivers
- Deflection Circuits



Absolute Maximum Ratings (Ta=25°C)

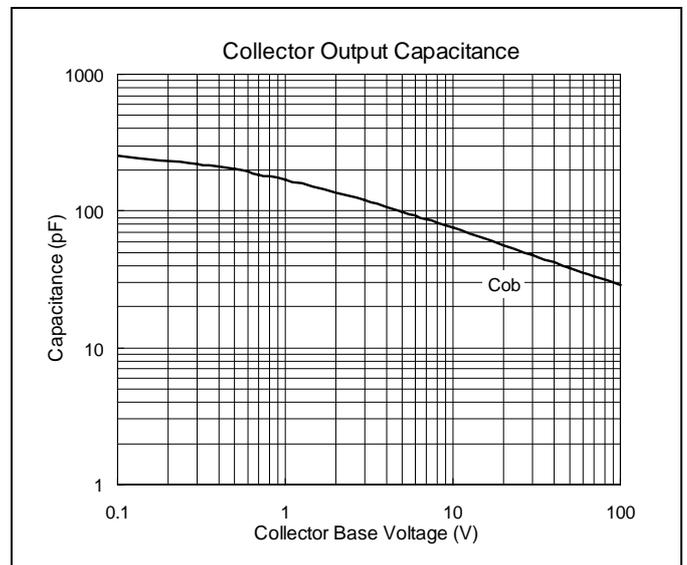
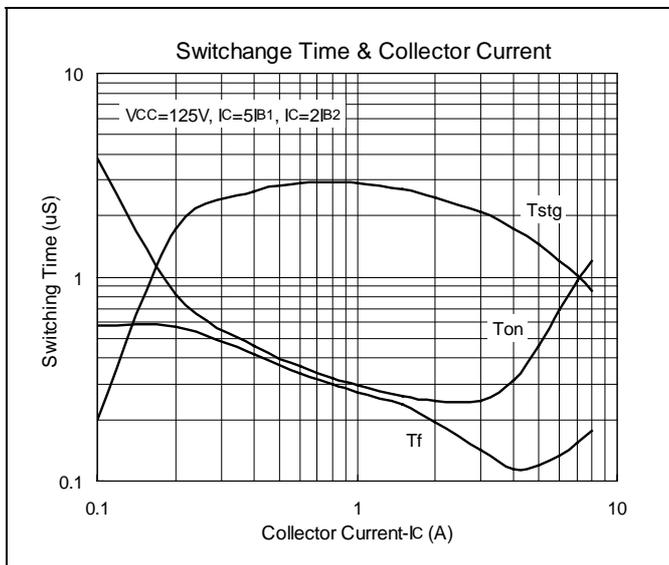
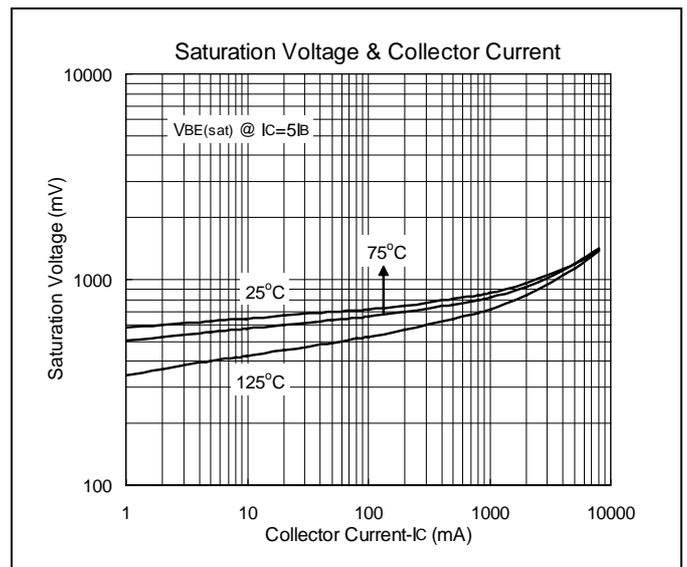
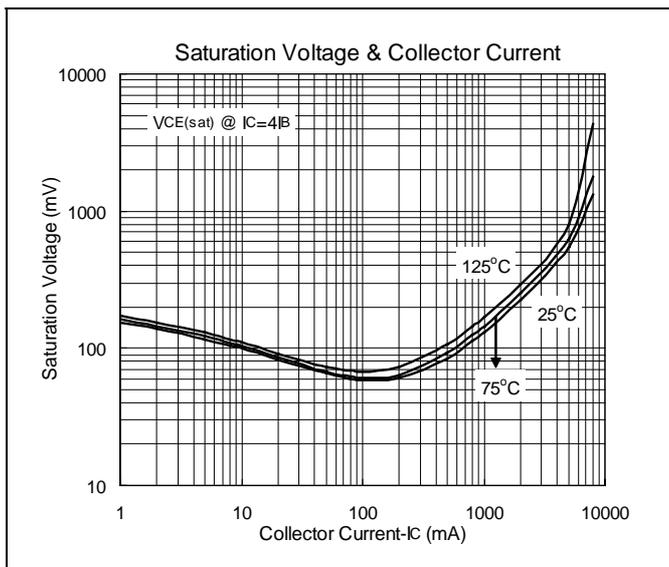
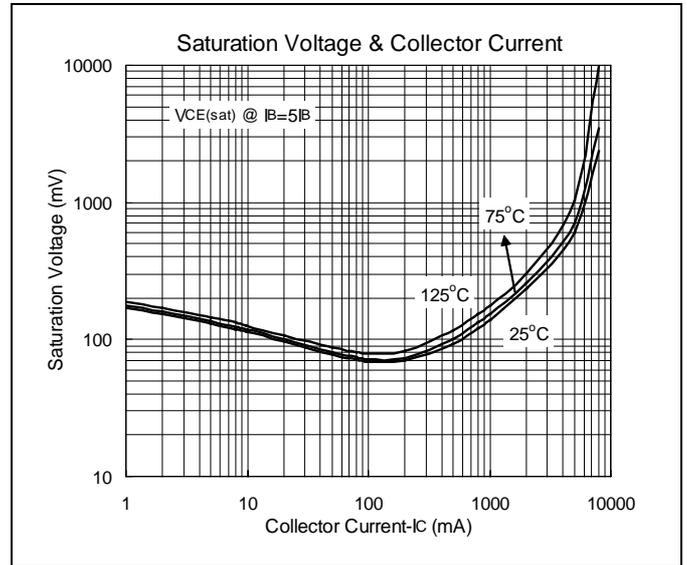
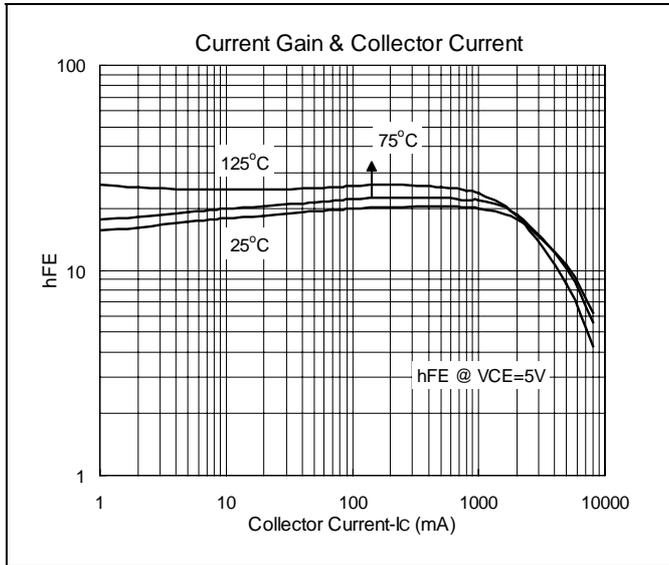
- Maximum Temperatures
 - Storage Temperature -50 ~ +150 °C
 - Junction Temperature 150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (Tc=25°C) 80 W
- Maximum Voltages and Currents (Ta=25°C)
 - VCEX Collector to Emitter Voltage 700 V
 - VCEO Collector to Emitter Voltage 400 V
 - VEBO Emitter to Base Voltage 9 V
 - IC Collector Current Continuous 8 A
 - IB Base Current Continuous 4 A

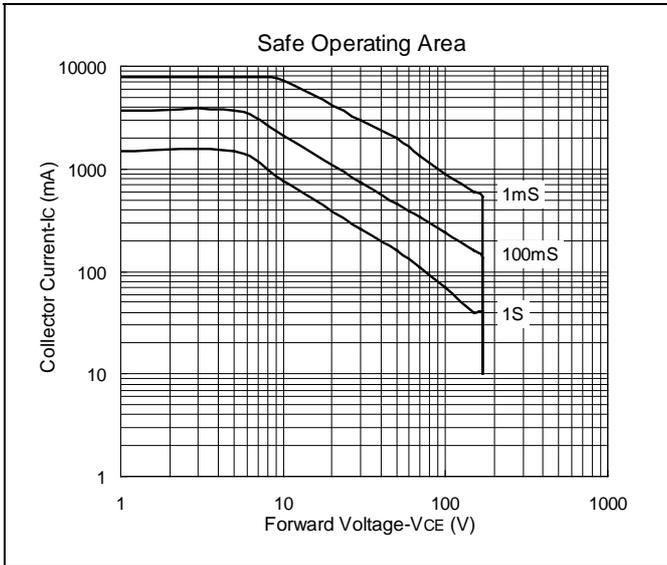
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCEX	700	-	-	V	IC=1mA, VBE(off)=1.5V
BVCEO	400	-	-	V	IC=10mA
IEBO	-	-	100	uA	VEB=9V
ICEX	-	-	100	uA	VCE=700V, VBE(off)=1.5V
*VCE(sat)1	-	-	1	V	IC=2A, IB=0.4A
*VCE(sat)2	-	-	2	V	IC=5A, IB=1A
*VCE(sat)3	-	-	3	V	IC=8A, IB=2A
*VBE(sat)	-	-	1.2	V	IC=2A, IB=0.4A
*VBE(sat)	-	-	1.6	V	IC=5A, IB=1A
*hFE1	10	-	-		IC=2A, VCE=5V
*hFE2	6	-	-		IC=5A, VCE=5V
*hFE3	10	-	30		IC=0.5A, VCE=5V

*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Characteristics Curve





TO-220F MECHANICAL DATA

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.20		4.75	e		2.54	
A ₁	2.30		2.90	L	12.50		14.30
b	0.45		0.90	L ₁	9.10		10.05
b ₁	1.10		1.70	L ₂	15.00		16.00
c	0.35		0.90	L ₃	3.00		4.00
D	14.50		17.00	øp	3.00		3.50
D ₁	6.10		9.00	Q	2.30		2.80
E	9.60		10.30				

