

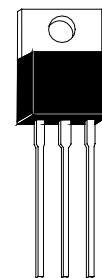


HMJE13005

NPN EPITAXIAL PLANAR TRANSISTOR

Description

- Switch Regulators
- PWM Inverters and Motor Controls
- Solenoid and Relay Drivers
- Deflection Circuits



TO-220

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) 75 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) 4 A
IB Base Current (Continuous) 2 A

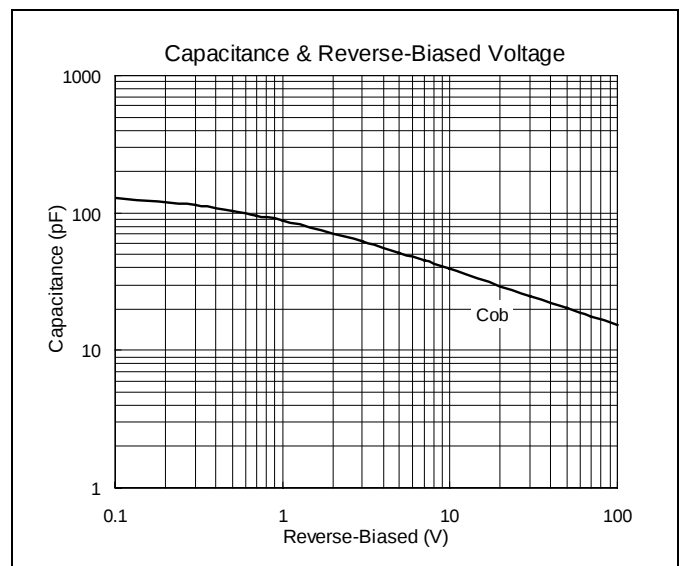
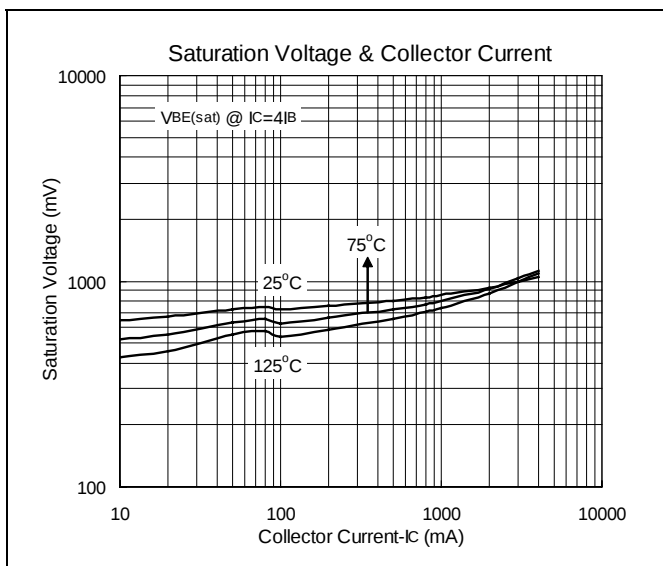
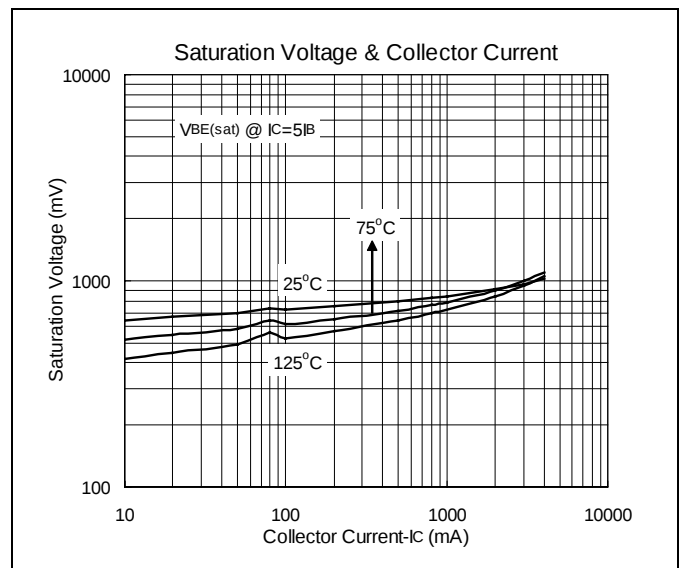
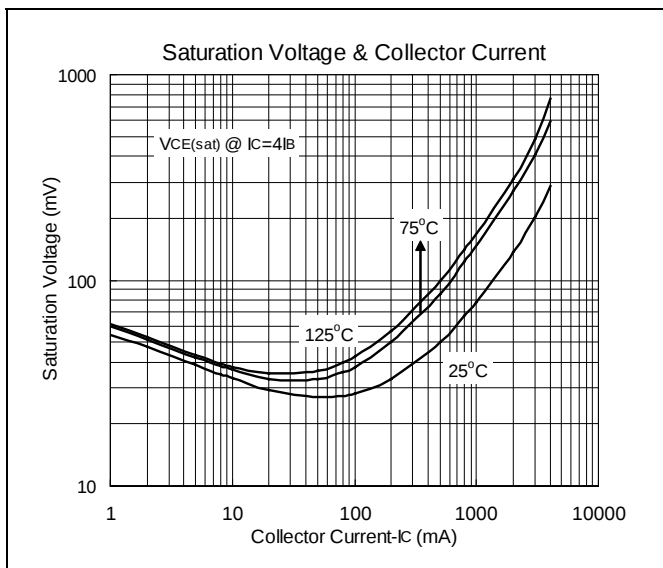
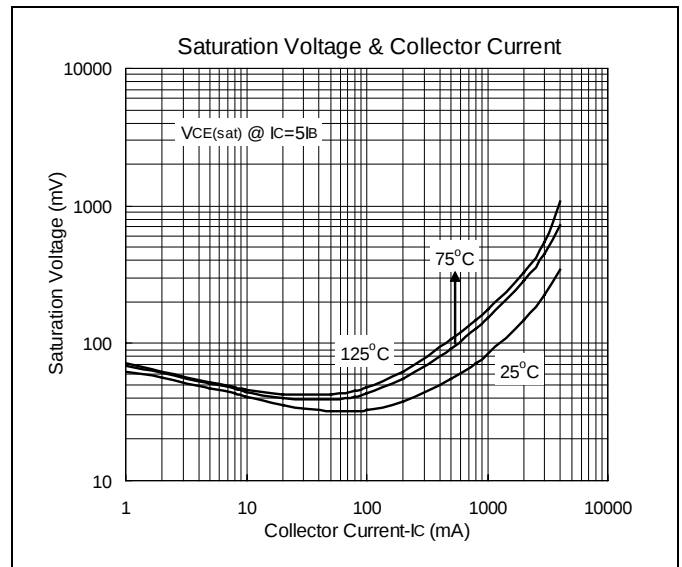
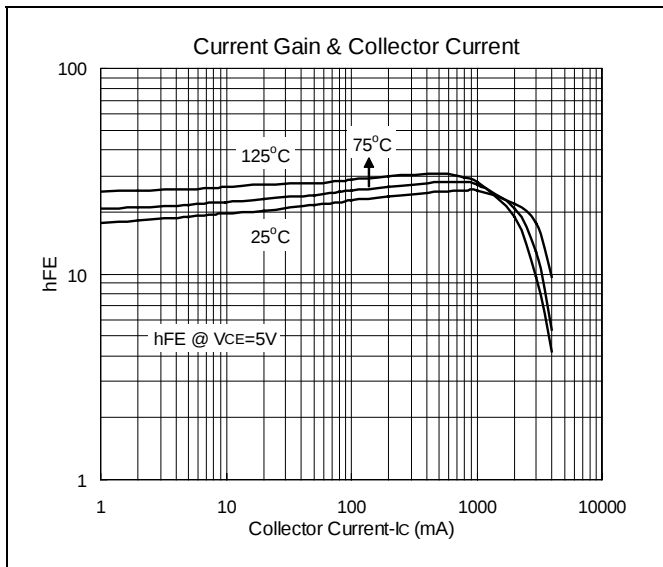
Characteristics (Ta=25°C)

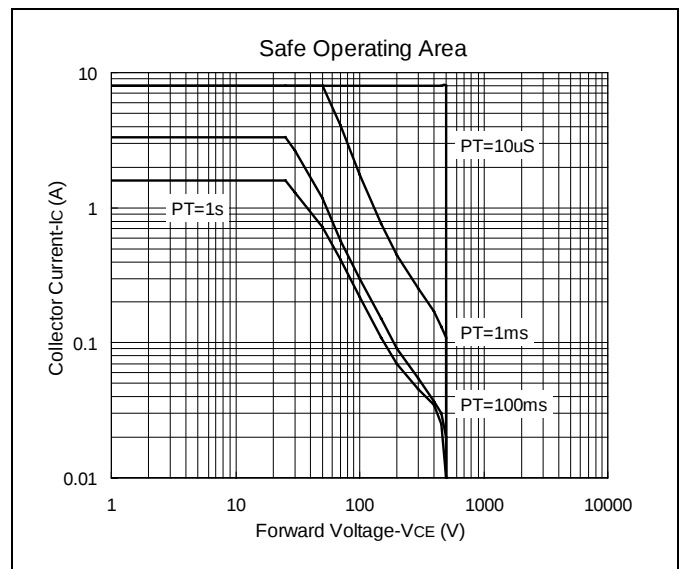
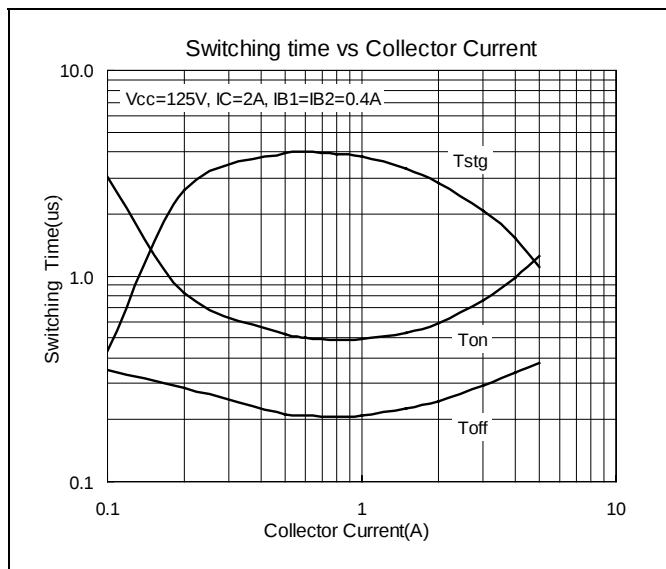
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCEX	700	-	-	V	IC=1mA, VBE(off)=1.5V
BVCEO	400	-	-	V	IC=10mA
IEBO	-	-	1	mA	VEB=9V
ICEX	-	-	1	mA	VCE=700V, VBE(off)=1.5V
*VCE(sat)1	-	-	500	mV	IC=1A, IB=200mA
*VCE(sat)2	-	-	0.6	V	IC=2A, IB=500mA
*VCE(sat)3	-	-	1	V	IC=4A, IB=1A
*VBE(sat)	-	-	1.2	V	IC=1A, IB=200mA
*VBE(sat)	-	-	1.6	V	IC=2A, IB=500mA
*hFE1	10	-	60		IC=0.5A, VCE=5V
*hFE2	10	-	60		IC=1A, VCE=5V
*hFE3	8	-	40		IC=2A, VCE=5V
Ton	-	0.6	0.8	uS	VCC=125V, IC=2A, IB1=IB2=0.4A
ts	-	2.9	4	uS	VCC=125V, IC=2A, IB1=IB2=0.4A
tf	-	0.25	0.9	uS	VCC=125V, IC=2A, IB1=IB2=0.4A

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



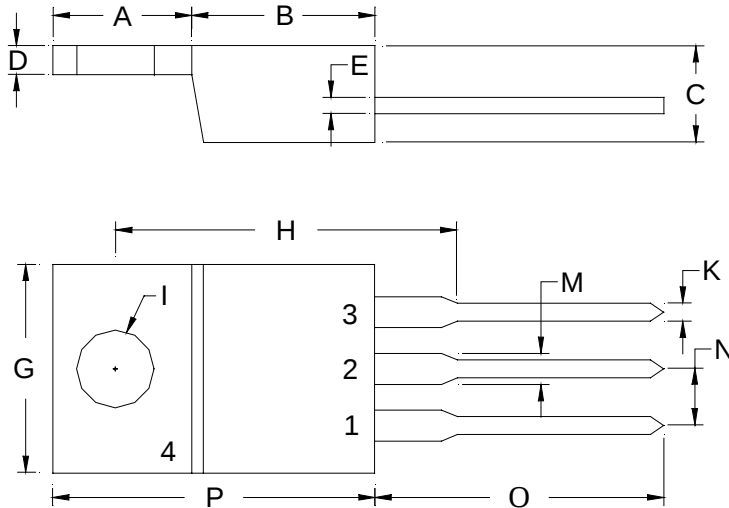
Characteristics Curve





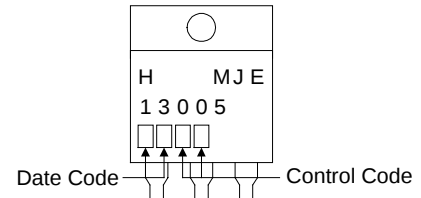


TO-220AB Dimension



3-Lead TO-220AB Plastic Package
HSMC Package Code: E

Marking:



Style: Pin 1.Base 2.Collector 3.Emitter

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.2197	0.2949	5.58	7.49	I	-	*0.1508	-	*3.83
B	0.3299	0.3504	8.38	8.90	K	0.0295	0.0374	0.75	0.95
C	0.1732	0.185	4.40	4.70	M	0.0449	0.0551	1.14	1.40
D	0.0453	0.0547	1.15	1.39	N	-	*0.1000	-	*2.54
E	0.0138	0.0236	0.35	0.60	O	0.5000	0.5618	12.70	14.27
G	0.3803	0.4047	9.66	10.28	P	0.5701	0.6248	14.48	15.87
H	-	*0.6398	-	*16.25					

Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.

2.Controlling dimension: millimeters.

3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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