

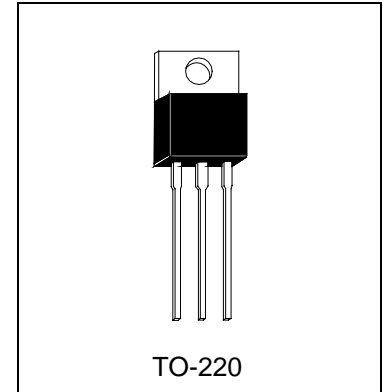


HMJE13005

NPN EPITAXIAL PLANAR TRANSISTOR

Description

- 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) 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

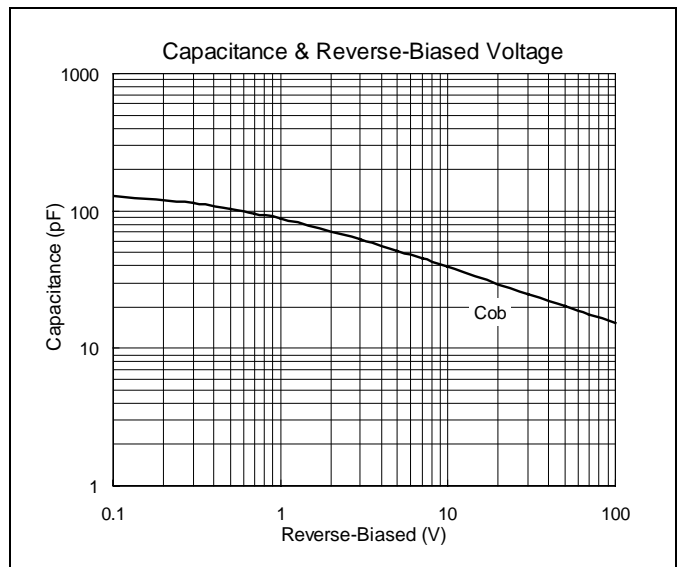
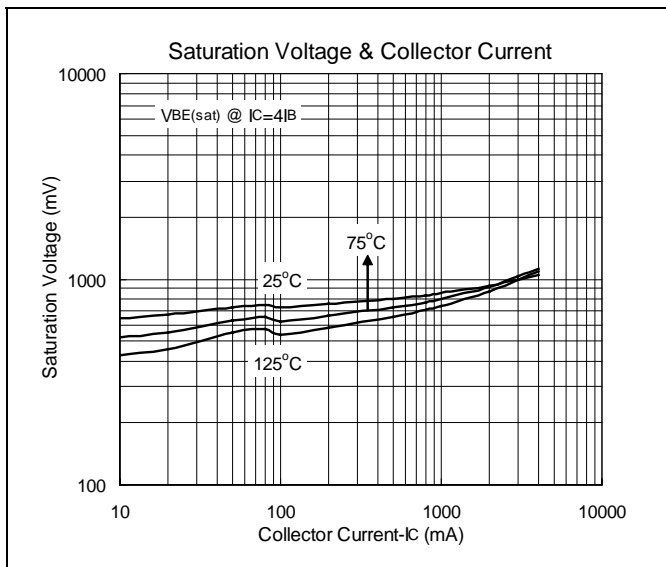
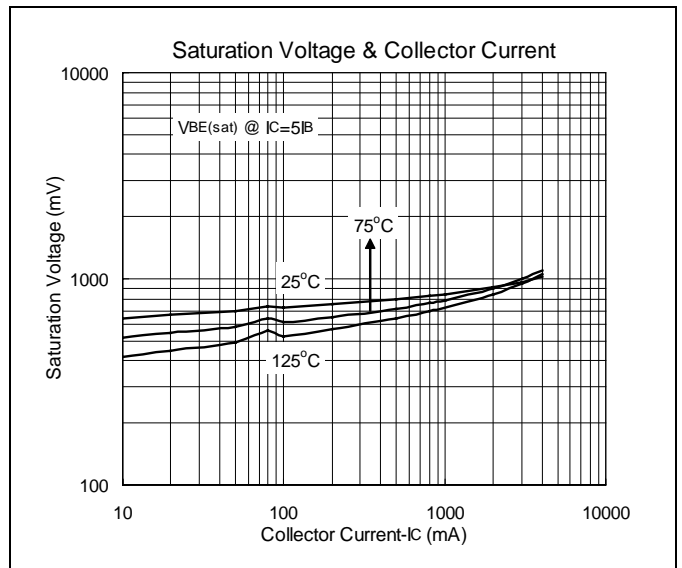
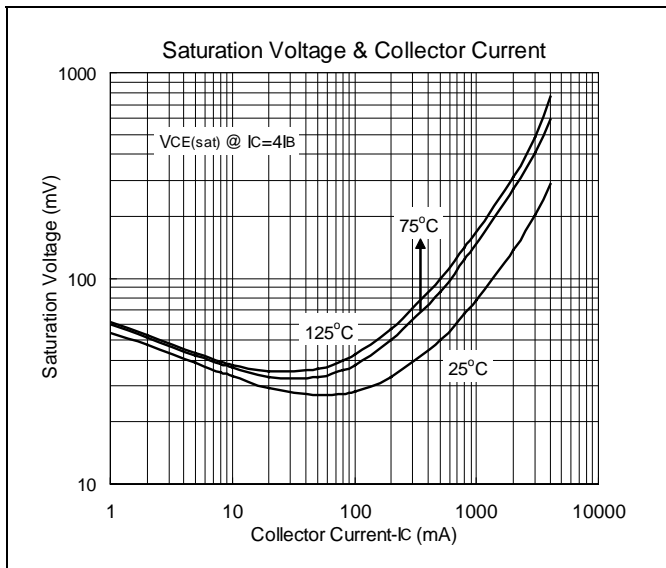
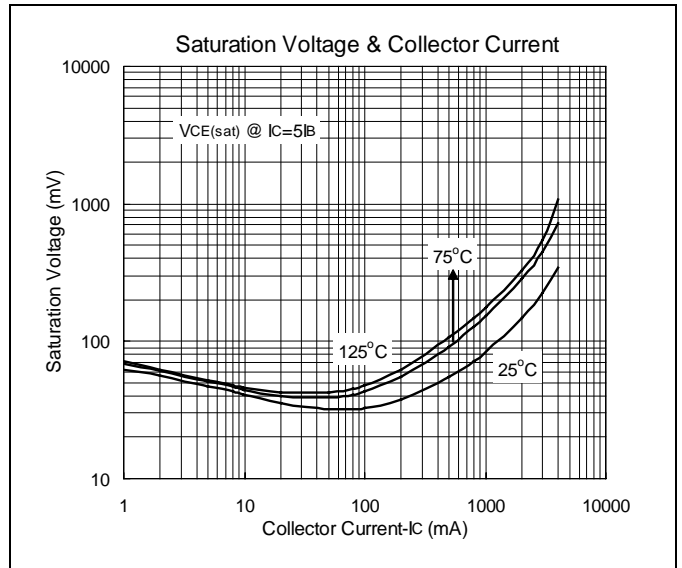
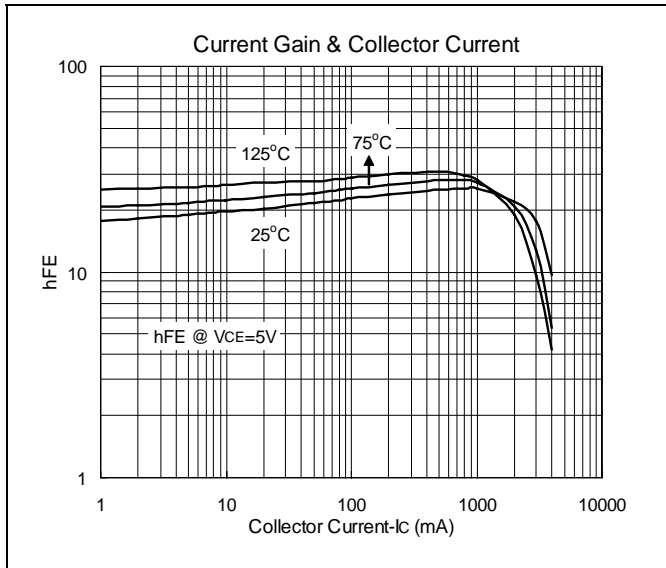
Characteristics (Ta=25°C)

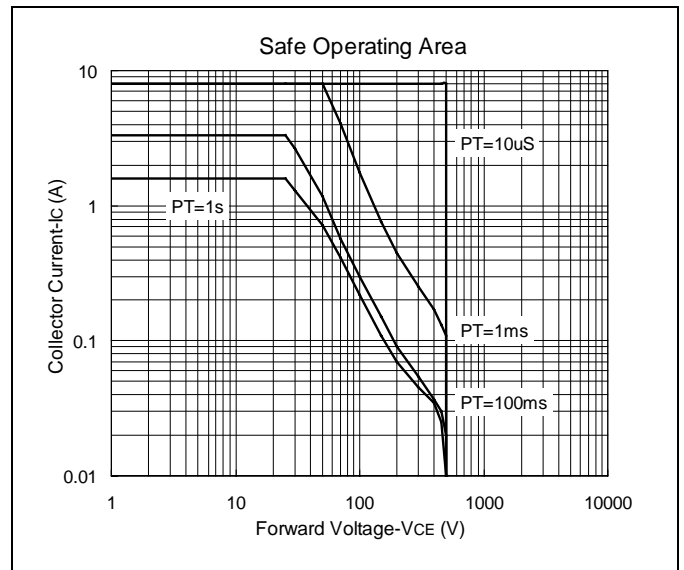
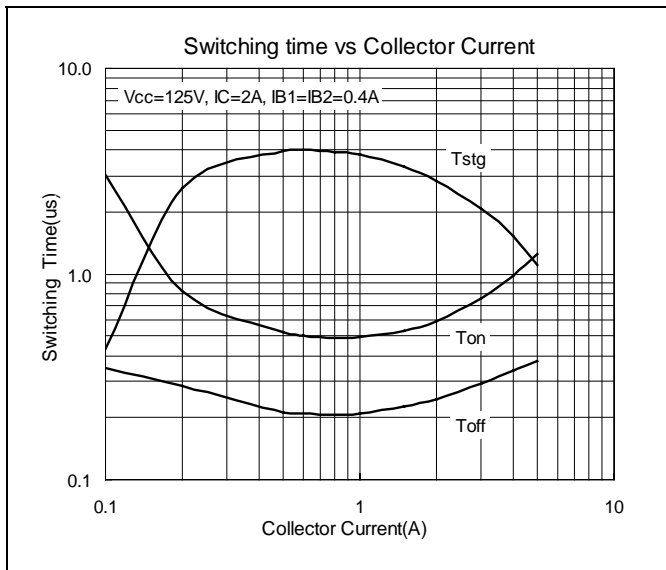
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCEX	700	-	-	V	IC=1mA, VBE(off)=1.5V
BVCEO	400	-	-	V	IC=10mA
IEBO	-	-	1	mA	VEB=9V
ICEX	-	-	1	mA	VCE=700V, VBE(off)=1.5V
*VCE(sat)1	-	-	500	mV	IC=1A, IB=200mA
*VCE(sat)2	-	-	0.6	V	IC=2A, IB=500mA
*VCE(sat)3	-	-	1	V	IC=4A, IB=1A
*VBE(sat)	-	-	1.2	V	IC=1A, IB=200mA
*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%



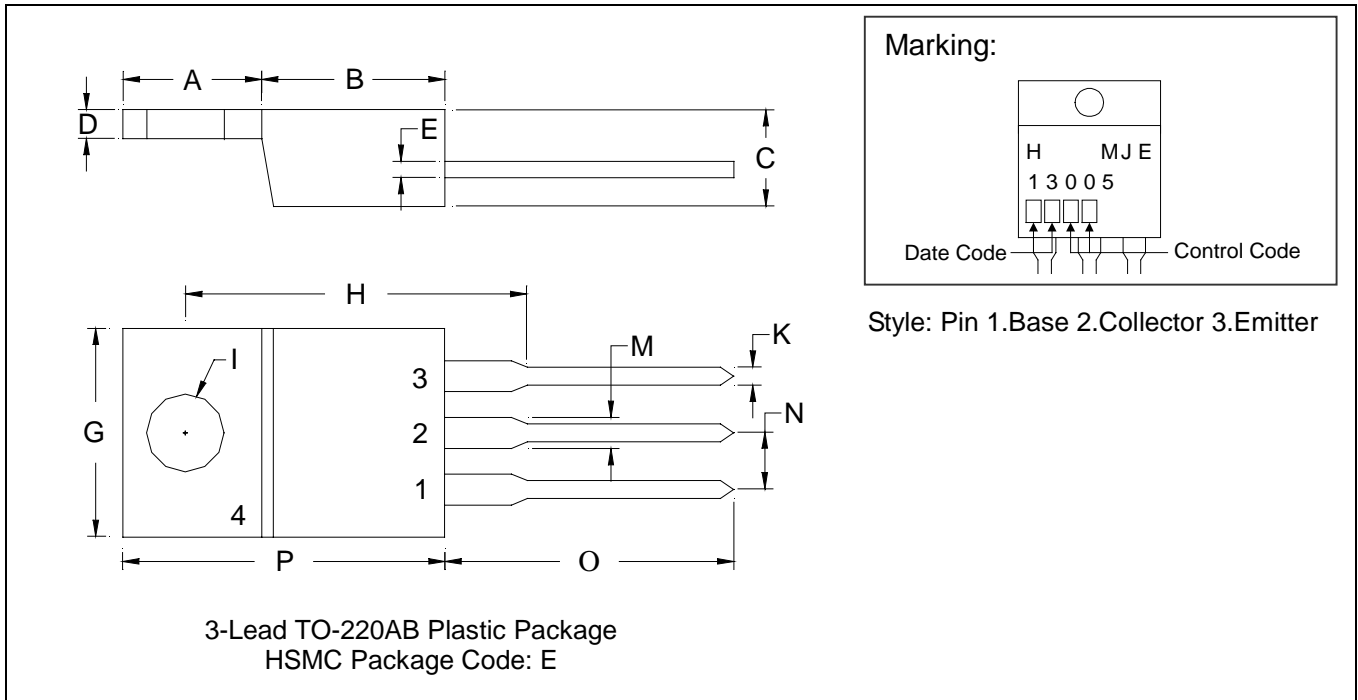
Characteristics Curve







TO-220AB Dimension



*: 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

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.