

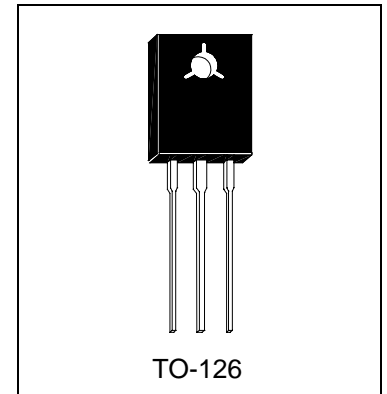


HMJE13003

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) 40 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 1.5 A
 IB Base Current Continuous 0.75 A

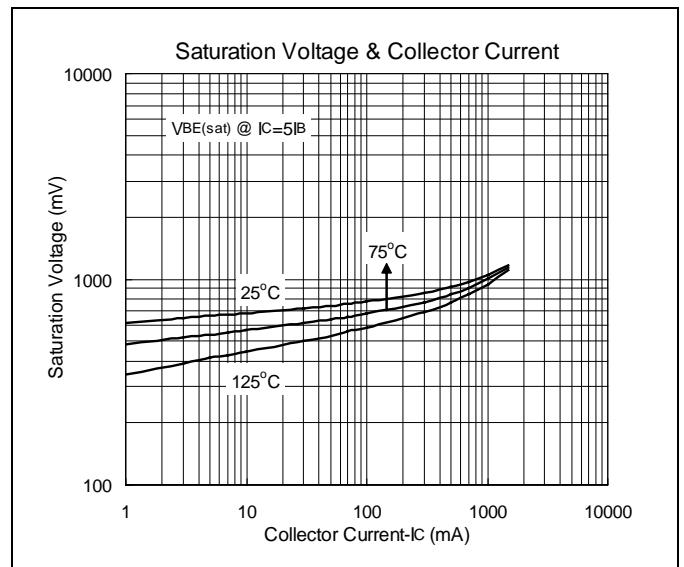
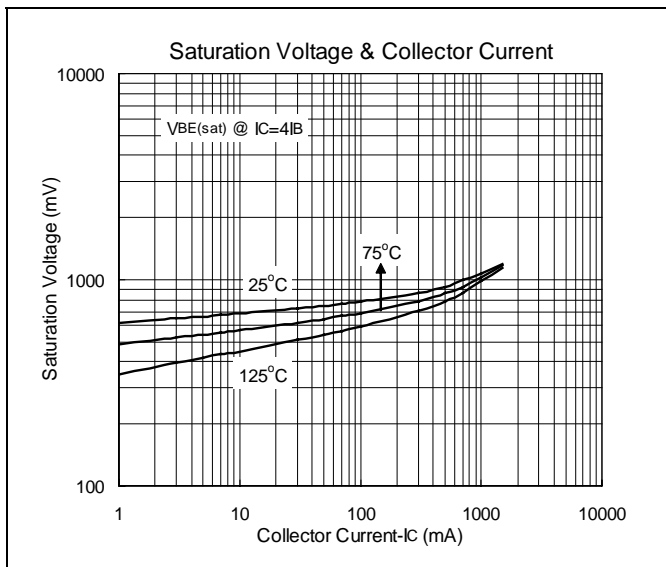
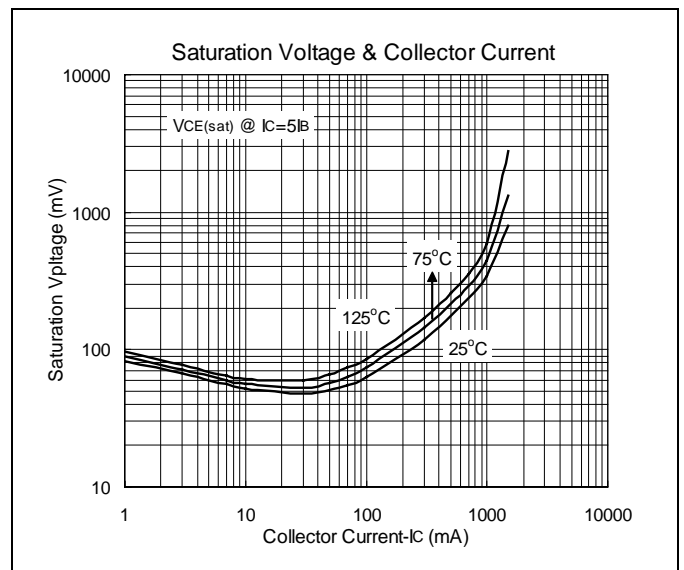
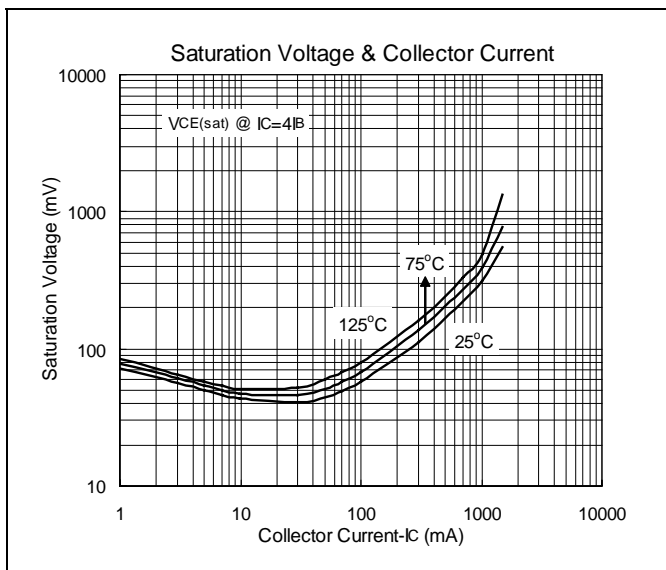
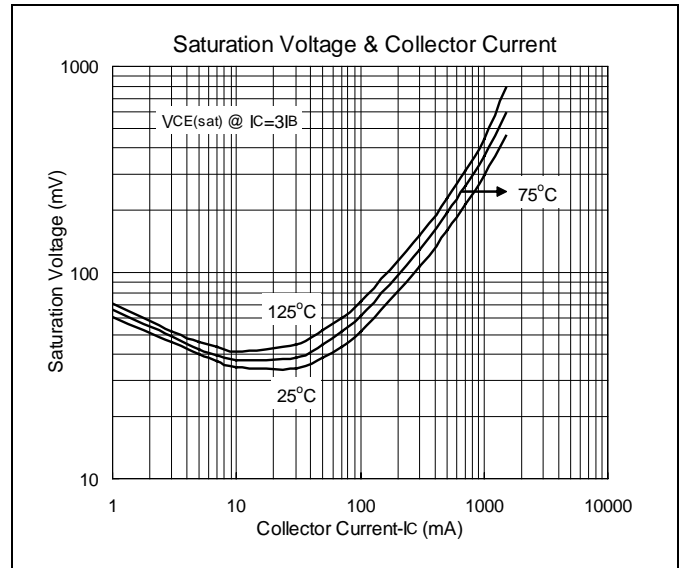
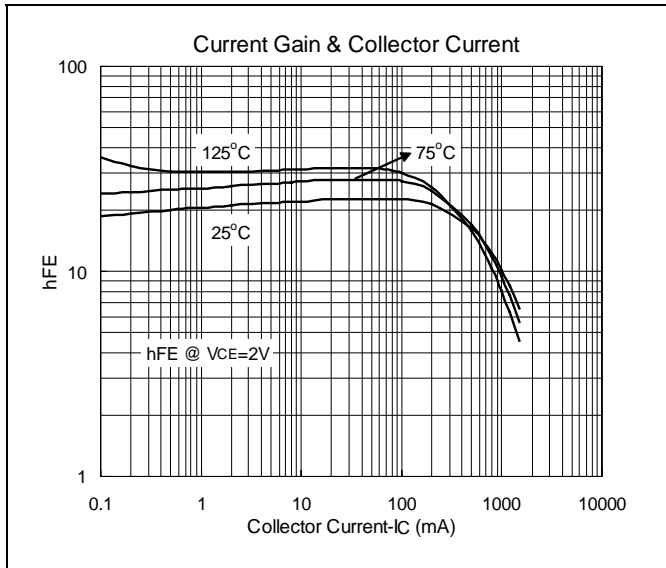
Characteristics (Ta=25°C)

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=0.5A, IB=0.1A
*VCE(sat)2	-	-	1	V	IC=1A, IB=0.25A
*VCE(sat)3	-	-	3	V	IC=1.5A, IB=0.5A
*VBE(sat)	-	-	1	V	IC=0.5A, IB=0.1A
*VBE(sat)	-	-	1.2	V	IC=1A, IB=0.25A
*hFE1	8	-	40		IC=0.5A, VCE=2V
*hFE2	5	-	25		IC=1A, VCE=2V

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

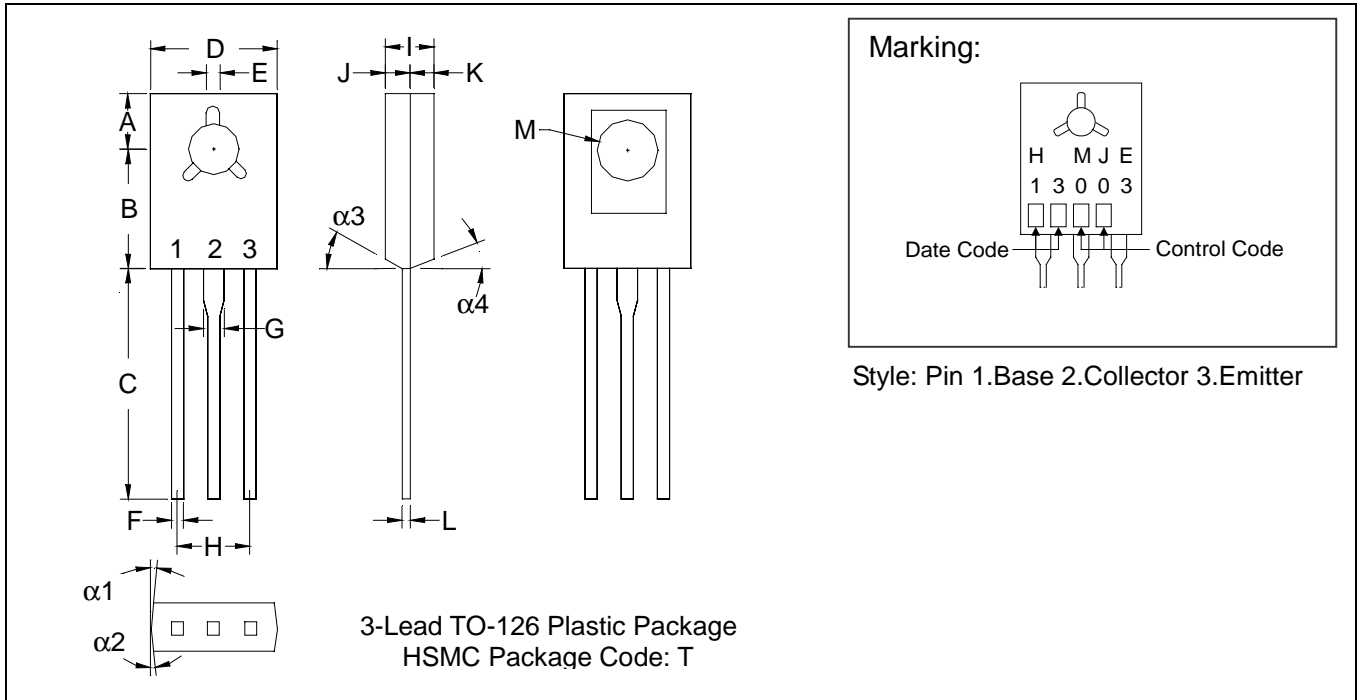


Characteristics Curve





TO-126 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
$\alpha 1$	-	*3°	-	*3°	F	0.0280	0.0319	0.71	0.81
$\alpha 2$	-	*3°	-	*3°	G	0.0480	0.0520	1.22	1.32
$\alpha 3$	-	*3°	-	*3°	H	0.1709	0.1890	4.34	4.80
$\alpha 4$	-	*3°	-	*3°	I	0.0950	0.1050	2.41	2.66
A	0.1500	0.1539	3.81	3.91	J	0.0450	0.0550	1.14	1.39
B	0.2752	0.2791	6.99	7.09	K	0.0450	0.0550	1.14	1.39
C	0.5315	0.6102	13.50	15.50	L	-	*0.0217	-	*0.55
D	0.2854	0.3039	7.52	7.72	M	0.1378	0.1520	3.50	3.86
E	0.0374	0.0413	0.95	1.05					

- Notes: 1.Dimension and tolerance based on our Spec. dated Mar. 6,1995.
 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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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