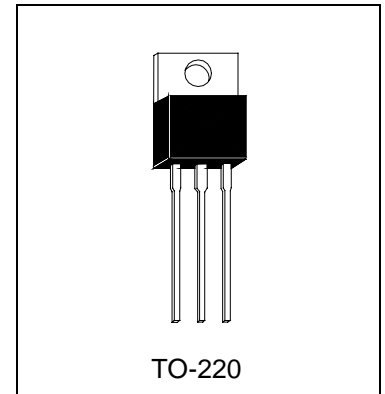




HSD313

NPN EPITAXIAL PLANAR TRANSISTOR



Description

The HSD313 is designed for use in general purpose amplifier and switching applications.

Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
 - Storage Temperature -50 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (Ta=25°C) 2 W
 - Total Power Dissipation (Tc=25°C) 30 W
- Maximum Voltages and Currents
 - BVCBO Collector to Base Voltage 60 V
 - BVCEO Collector to Emitter Voltage 60 V
 - BVEBO Emitter to Base Voltage 5 V
 - IC Collector Current 3 A

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=1mA, IE=0
BVCEO	60	-	-	V	IC=10mA, IB=0
BVEBO	5	-	-	V	IE=100uA, IC=0
ICBO	-	-	0.1	mA	VCB=20V, IE=0
ICEO	-	-	5	mA	VCE=60V, IB=0
IEBO	-	-	1	mA	VEB=4V, IC=0
*VCE(sat)	-	-	1	V	IC=2A, IB=0.2A
*VBE(on)	-	-	1.5	V	IC=1A, VCE=2V
*hFE1	40	-	320		IC=1A, VCE=2V
*hFE2	40	-	-		IC=0.1A, VCE=2V
ft	-	8	-	V	VCE=5V, IC=0.5A

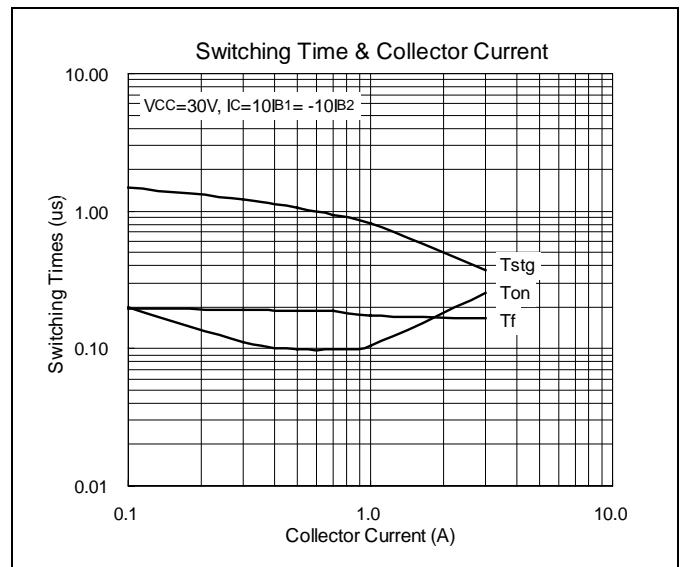
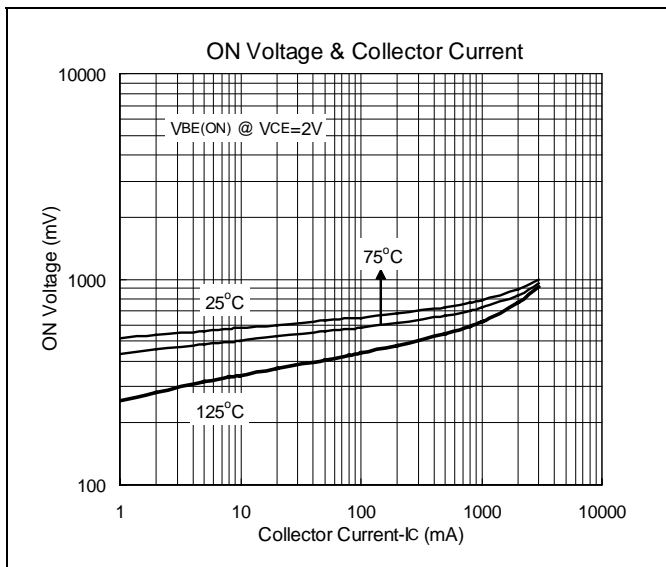
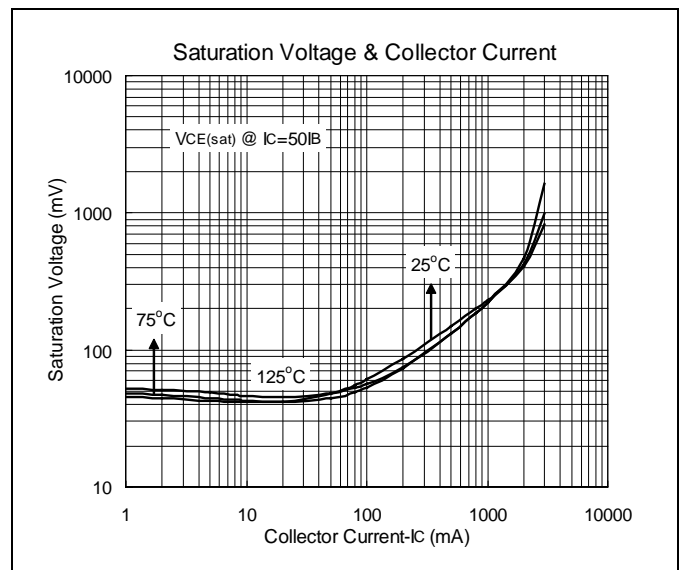
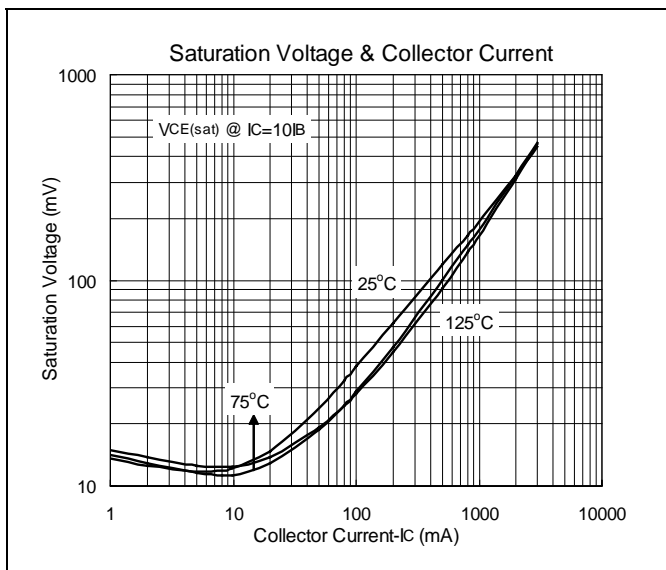
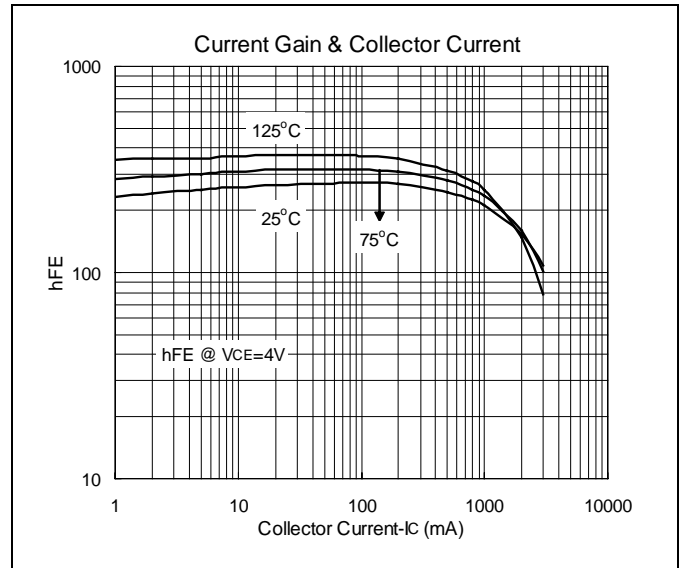
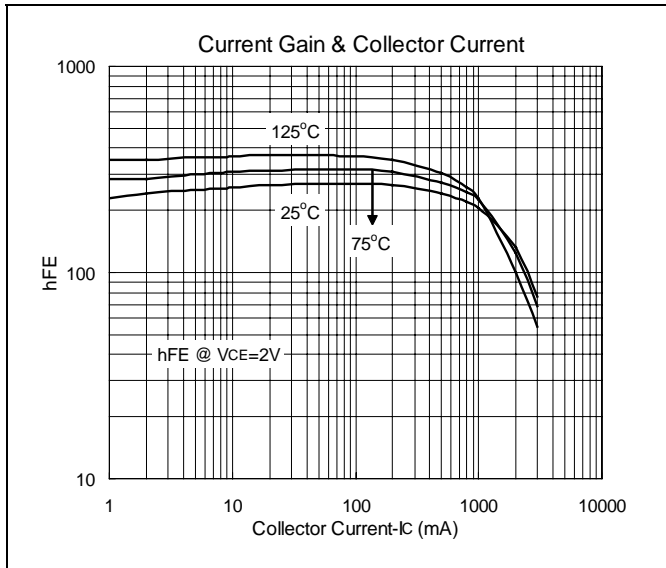
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

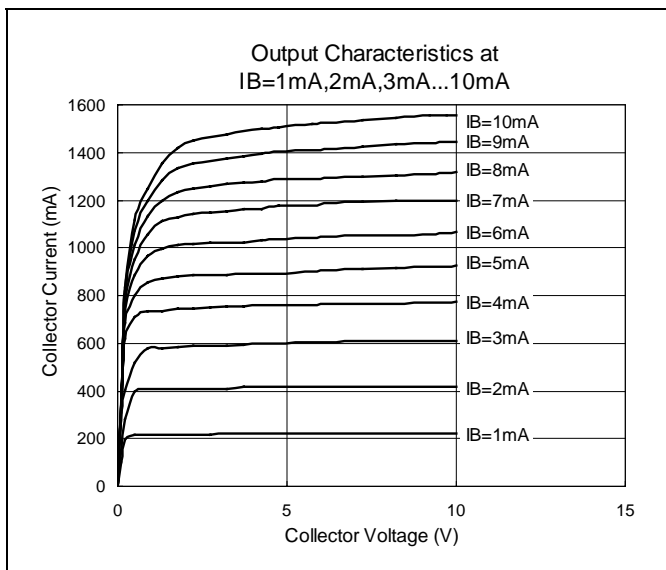
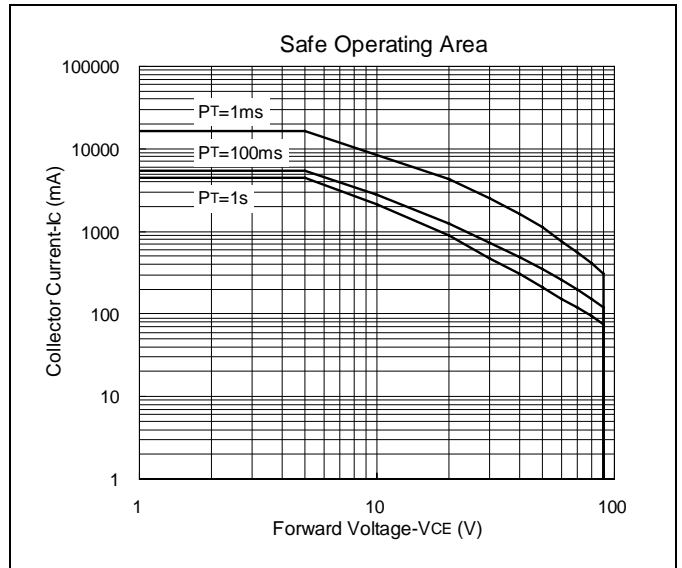
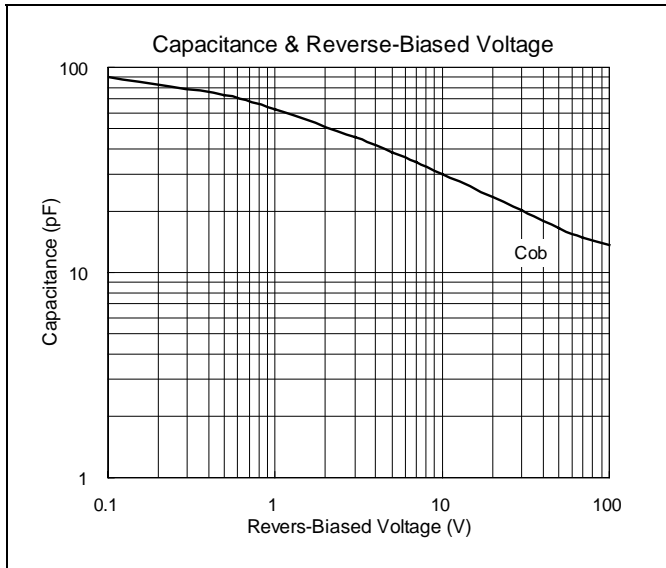
Classification Of hFE1

Rank	C	D	E	F
hFE	40-80	60-120	100-200	160-320



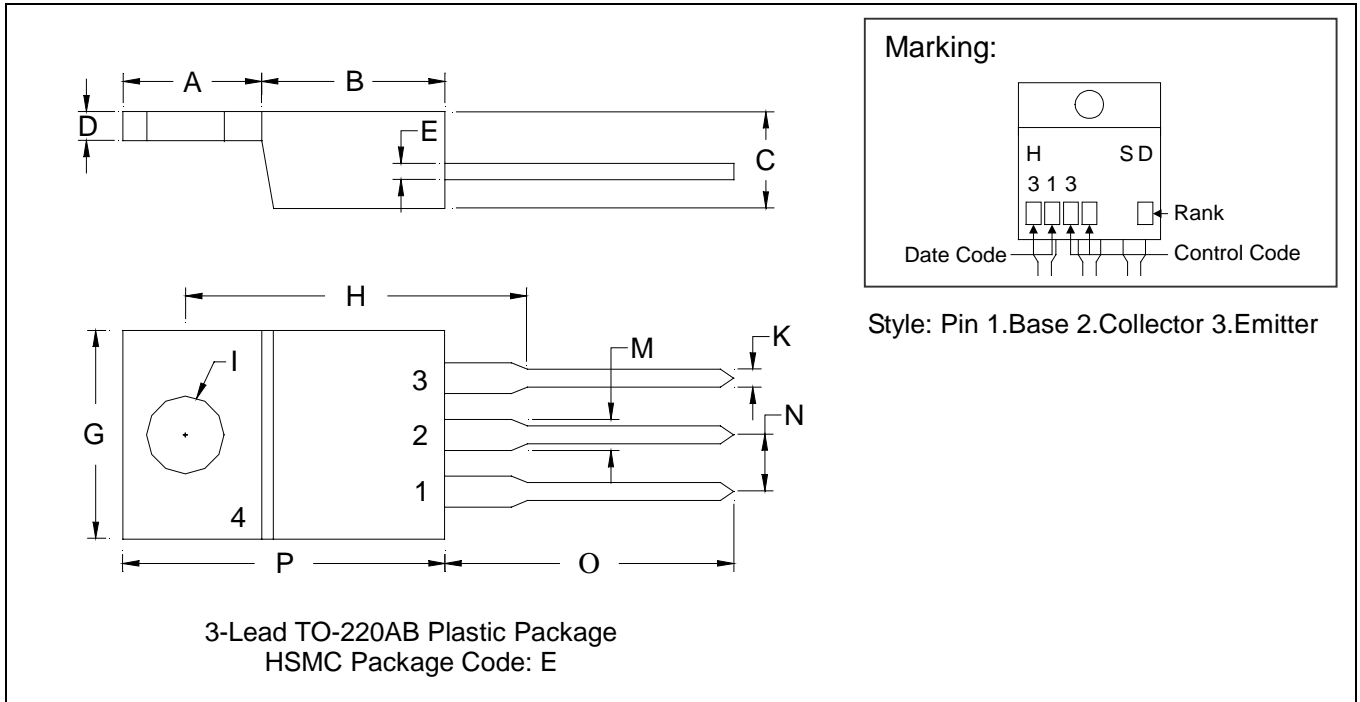
Characteristics Curve







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

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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



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