

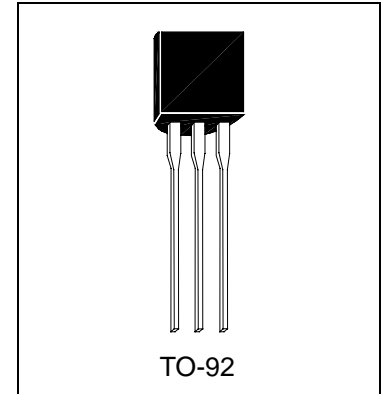


HBC548

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HBC548 is designed for switching and AF amplifier amplification suitable for automatic insertion in thick and thin-film circuits.



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 to +150 °C
 Junction Temperature..... +150 °C
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 625 mW
- Maximum Voltages and Currents (Ta=25°C)
 VCBO Collector to Base Voltage 30 V
 VCEO Collector to Emitter Voltage..... 30 V
 VEBO Emitter to Base Voltage..... 5 V
 IC Collector Current..... 100 mA

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA
BVCEO	30	-	-	V	IC=1mA
VEBO	5	-	-	V	IE=10uA
ICBO	-	-	15	nA	VCB=30V
*VCE(sat)1	-	90	250	mV	IC=10mA, IB=0.5mA
*VCE(sat)2	-	200	600	mV	IC=100mA, IB=5mA
*VBE(sat)1	-	700	-	mV	IC=10mA, IB=0.5mA
*VBE(sat)2	-	900	-	mV	IC=100mA, IB=5mA
VBE(on)1	580	-	700	mV	VCE=5V, IC=2mA
VBE(on)2	-	-	770	mV	VCE=5V, IC=10mA
*hFE	110	-	800		VCE=5V, IC=2mA
fT	-	300	-	MHz	VCE=5V, IC=10mA
Cob	-	3.5	6	pF	VCB=10V, f=1MHz, IE=0

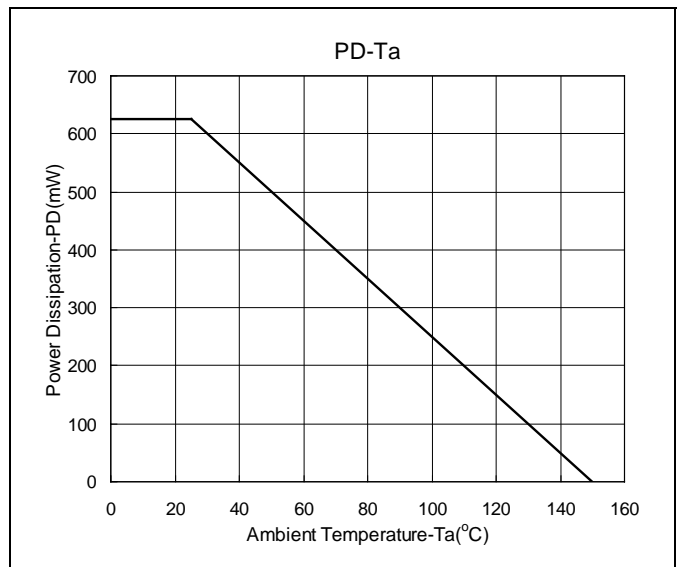
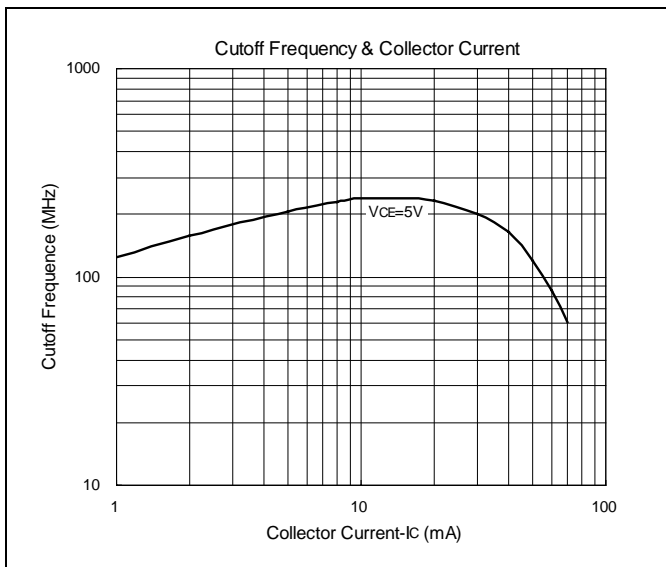
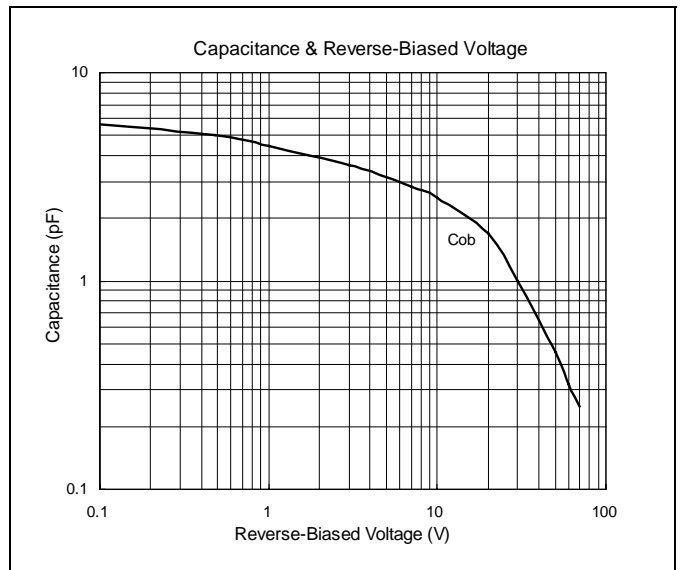
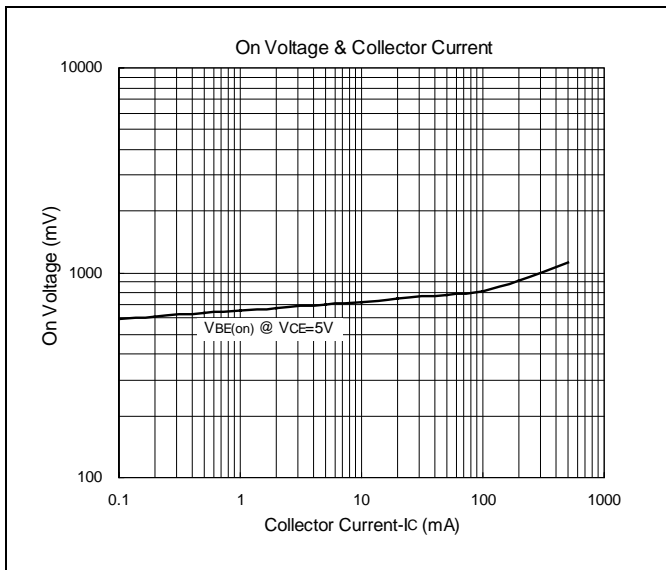
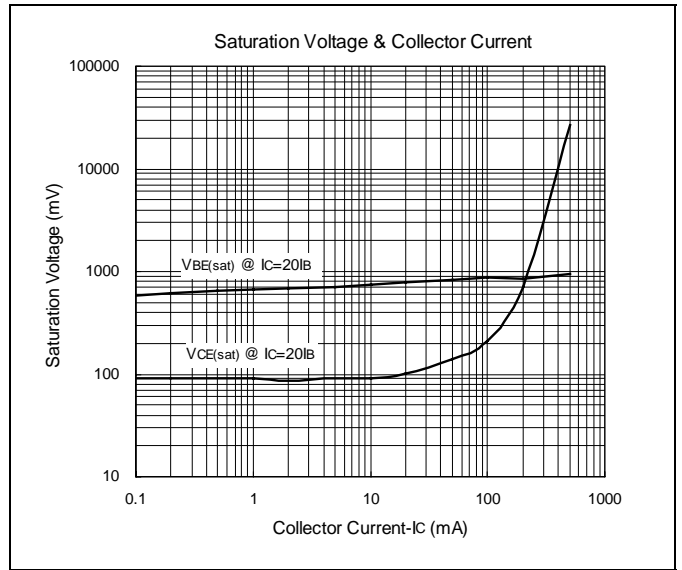
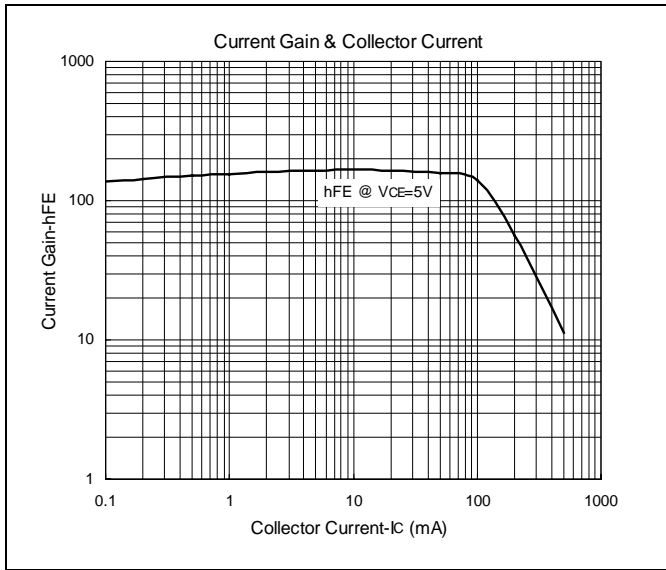
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

Classification Of hFE

Rank	A	B	C
hFE	110-220	200-450	420-800

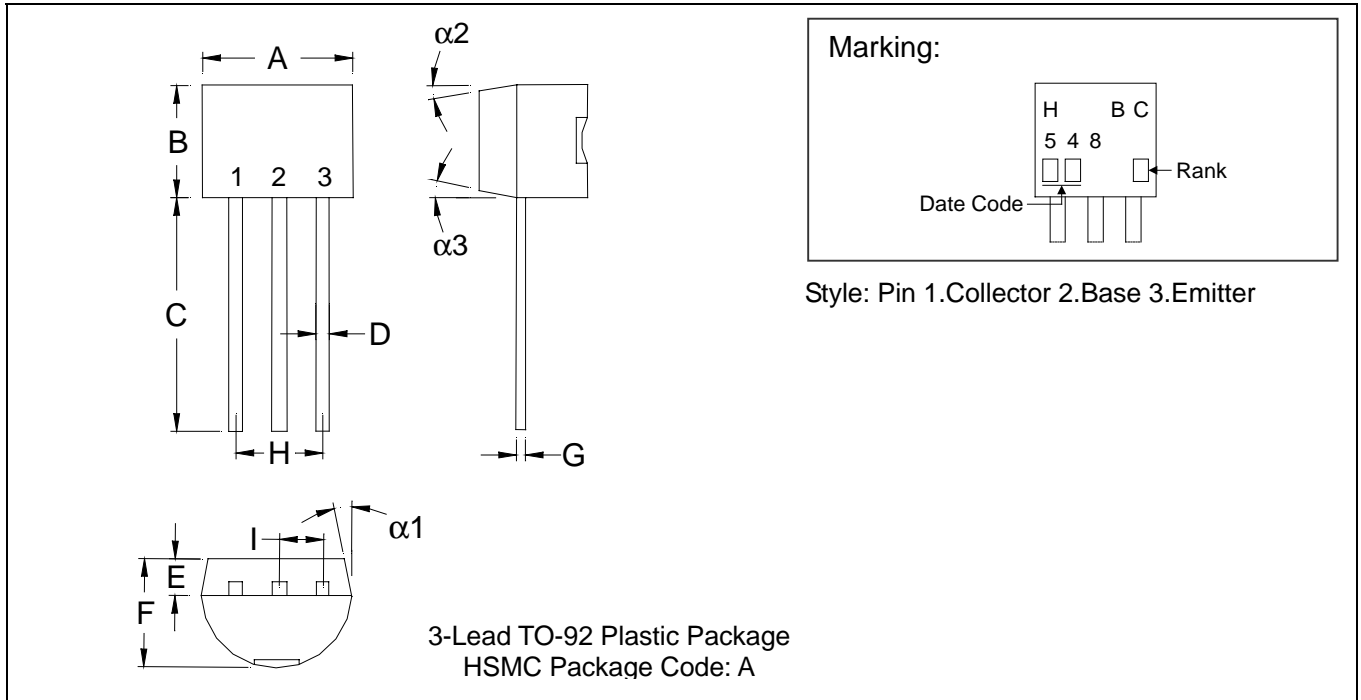


Characteristics Curve





TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

- Notes:**
1. Dimension and tolerance based on our Spec. dated Apr. 25, 1996.
 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