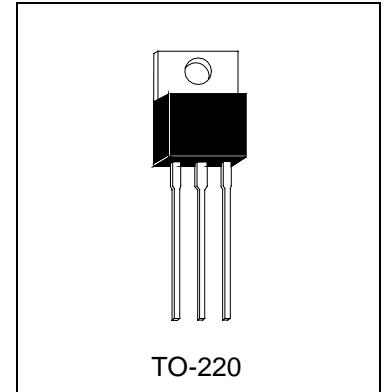




# HTIP50

NPN EPITAXIAL PLANAR TRANSISTOR



## Description

The HTIP50 is designed for line operated audio output amplifier switch-mode power supply drivers and other 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 (Tc=25°C) ..... 40 W
  - Total Power Dissipation (Ta=25°C) ..... 2 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... 500 V
  - BVCEO Collector to Emitter Voltage ..... 400 V
  - BVEBO Emitter to Base Voltage ..... 5 V
  - IC Collector Current ..... 1 A

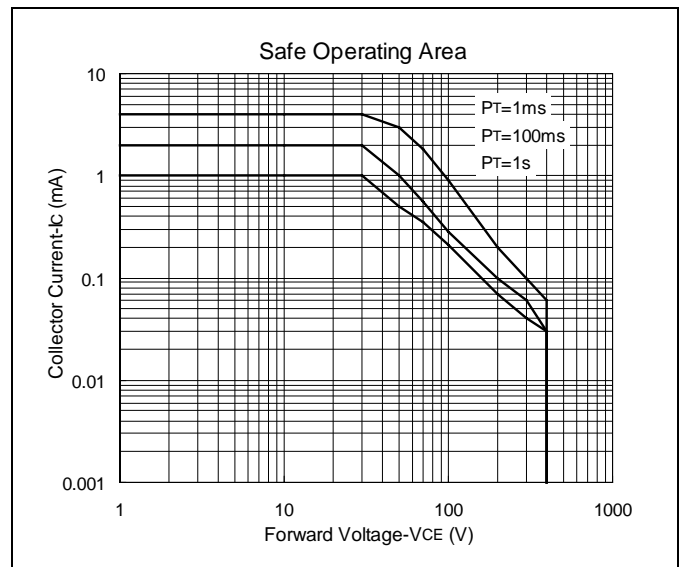
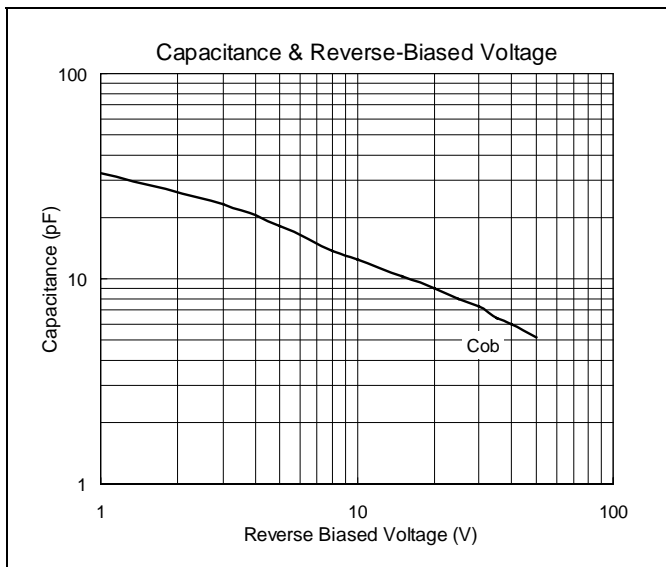
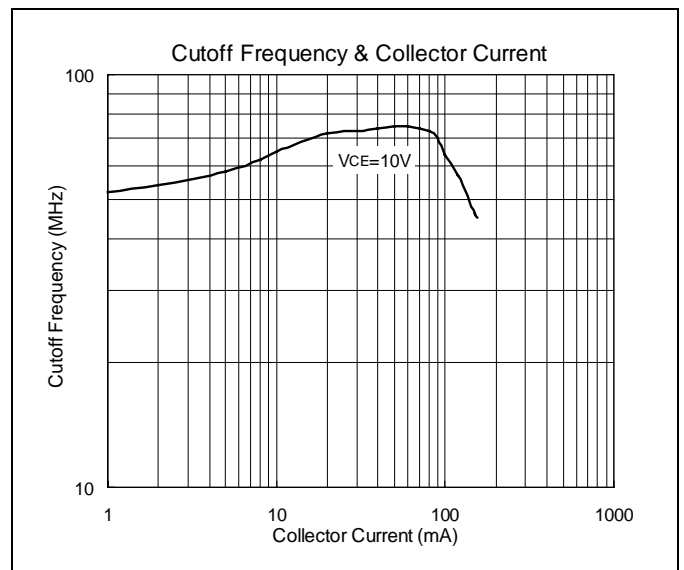
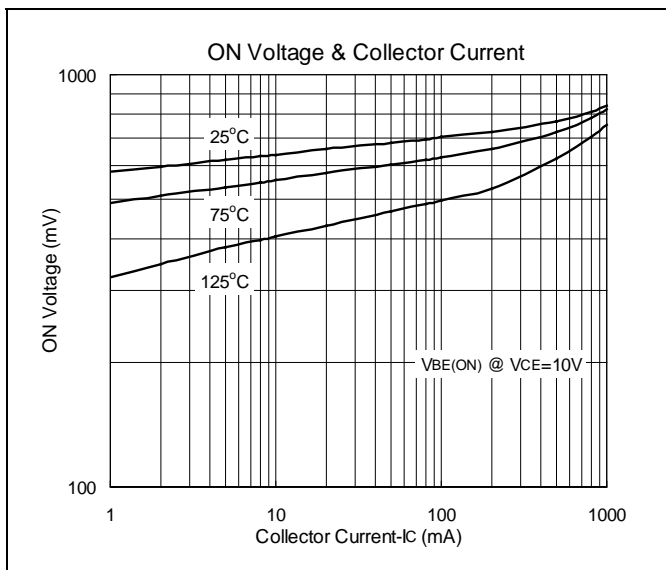
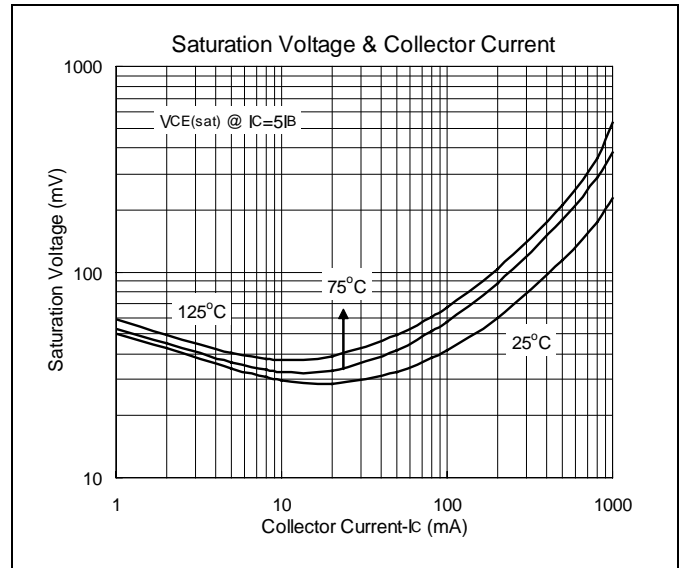
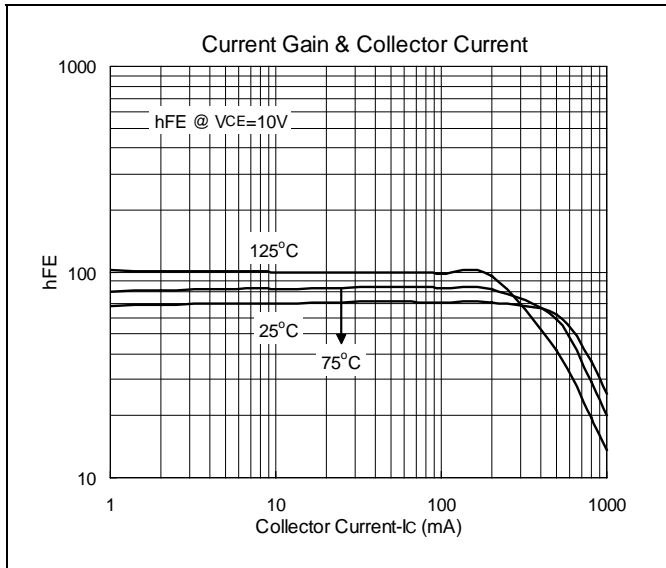
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	500	-	-	V	IC=1mA, IE=0
BVCEO	400	-	-	V	IC=30mA, IB=0
BVEBO	5	-	-	V	IE=0.1mA, IC=0
IEBO	-	-	1	mA	VEB=5V, IC=0
ICEO	-	-	1	mA	VCE=300V, IB=0
ICES	-	-	1	mA	VCE=500V, VEB=0
*VCE(sat)	-	-	1	V	IC=1A, IB=0.2A
VBE(on)	-	-	1.5	V	IC=1A, VCE=10V
*hFE1	30	-	150		IC=0.3A, VCE=10V
*hFE2	10	-	-		IC=1A, VCE=10V
fT	10	-	-	MHz	IC=0.2A, VCB=10V, f=2MHz

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

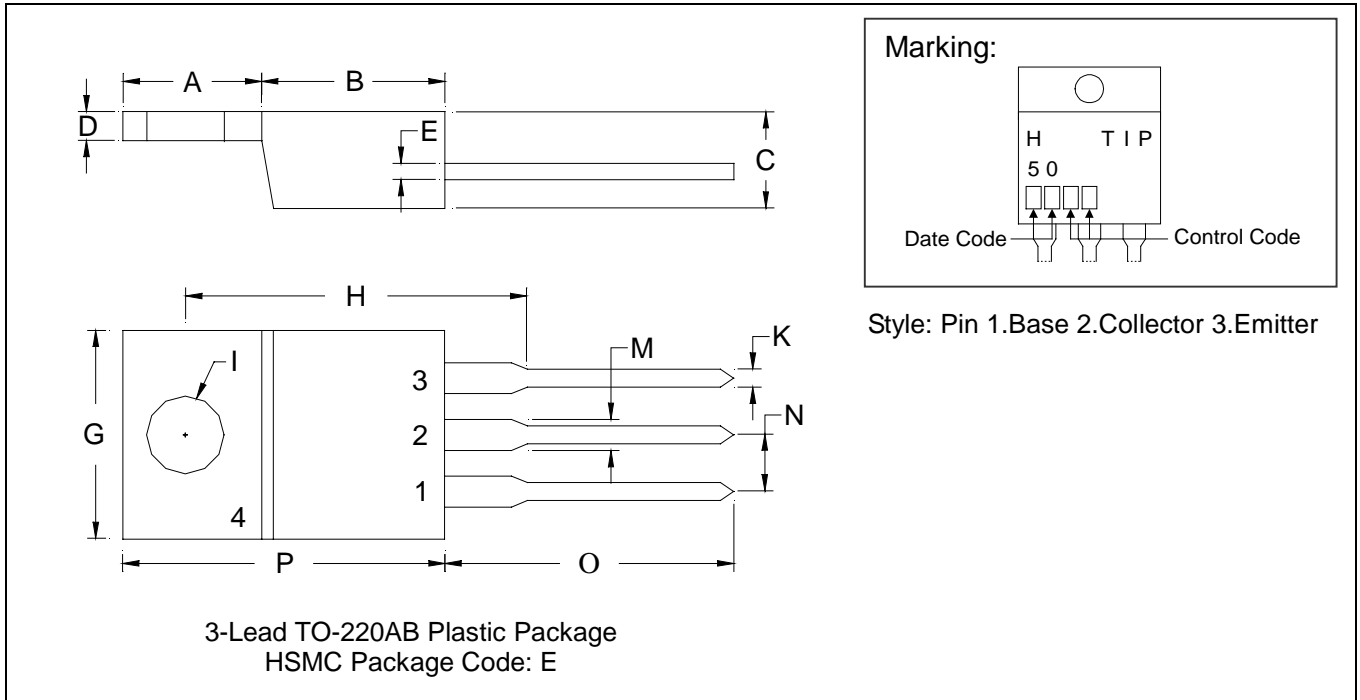


### Characteristics Curve





### 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

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