

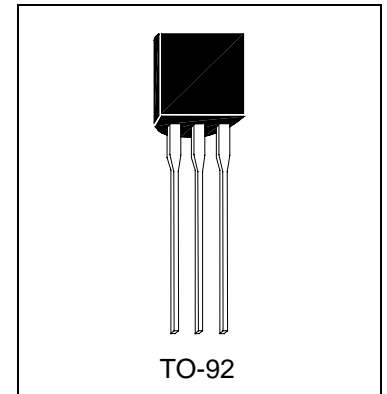


HSD471A

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HSD471A is designed for use in drive and output stage of frequency amplifier applications.



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature 150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 800 mW
- Maximum Voltages and Currents (Ta=25°C)
 VCBO Collector to Base Voltage 40 V
 VCEO Collector to Emitter Voltage 30 V
 VEBO Emitter to Base Voltage 5 V
 IC Collector Current 1 A

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	IC=100uA, IE=0
BVCEO	30	-	-	V	IC=10mA, IB=0
BVEBO	5	-	-	V	IE=100uA, IC=0
ICBO	-	-	100	nA	VCB=30V, IE=0
*VCE(sat)	-	-	0.5	V	IC=1A, IB=100mA
*VBE(sat)	-	-	1.2	V	IC=1A, IB=100mA
*hFE	70	-	400		VCE=1V, IC=100mA
fT	-	130	-	MHz	VCE=6V, IC=10mA
Cob	-	16	-	pF	VCB=6V, f=1MHz, IE=0

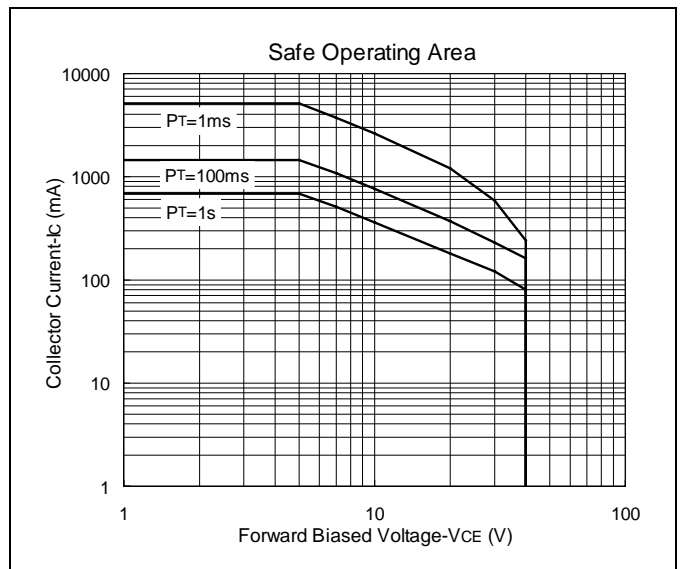
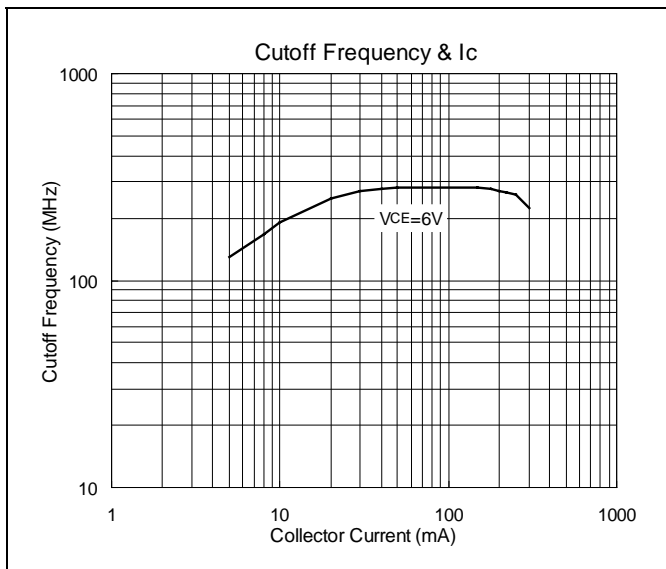
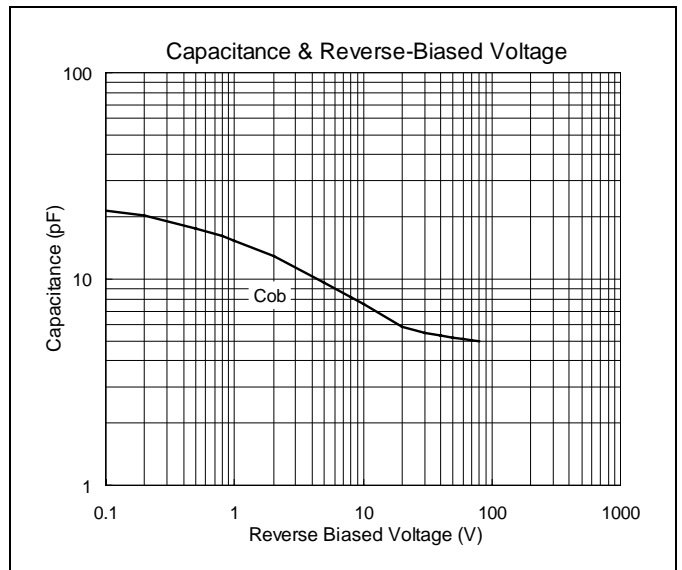
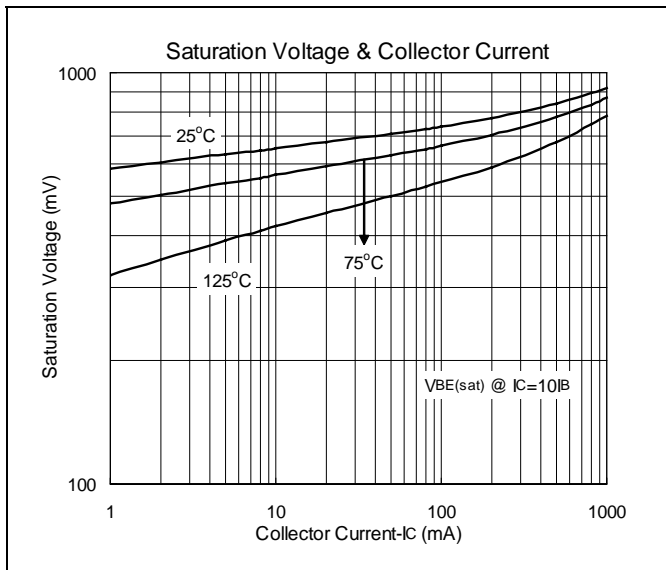
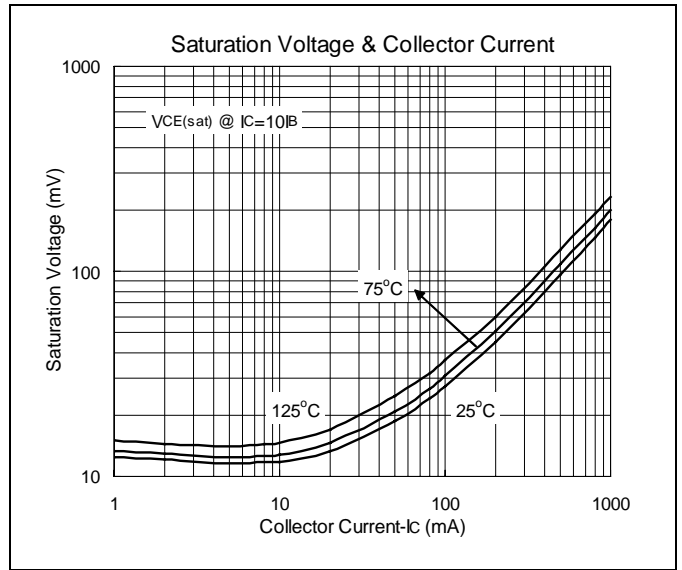
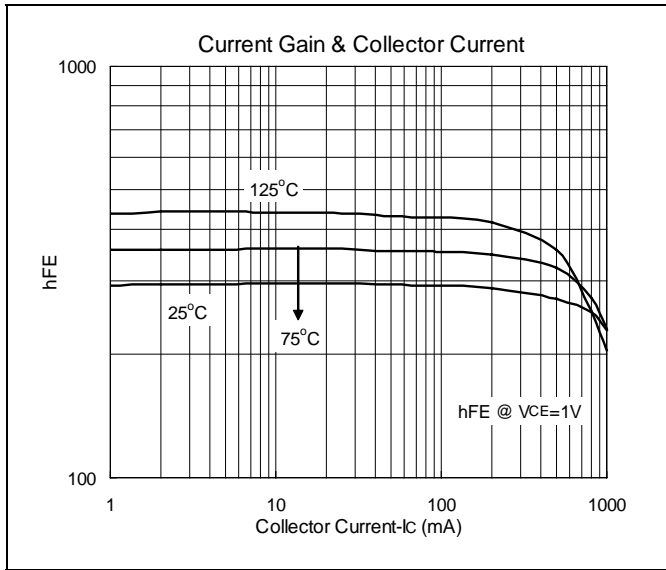
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

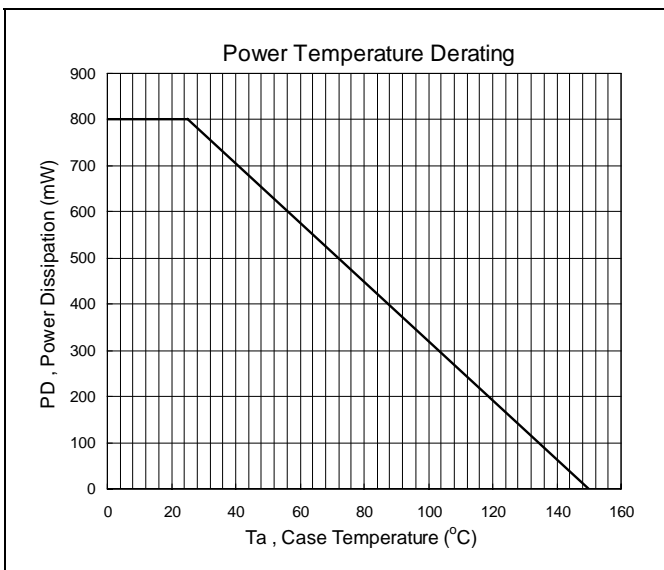
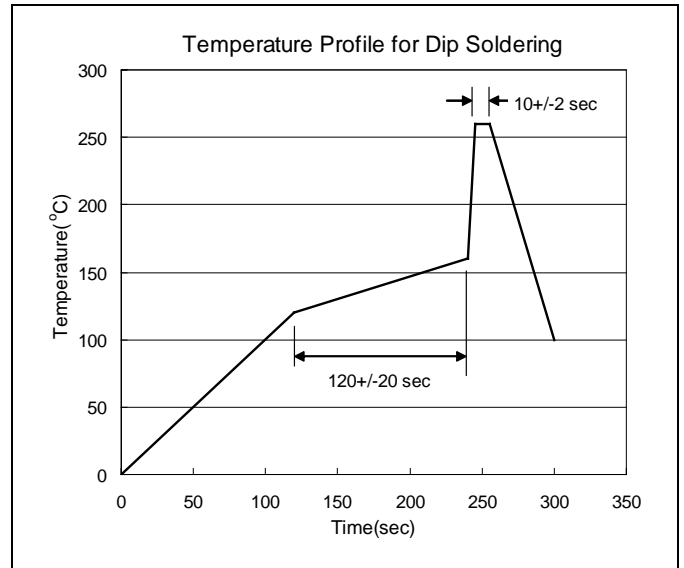
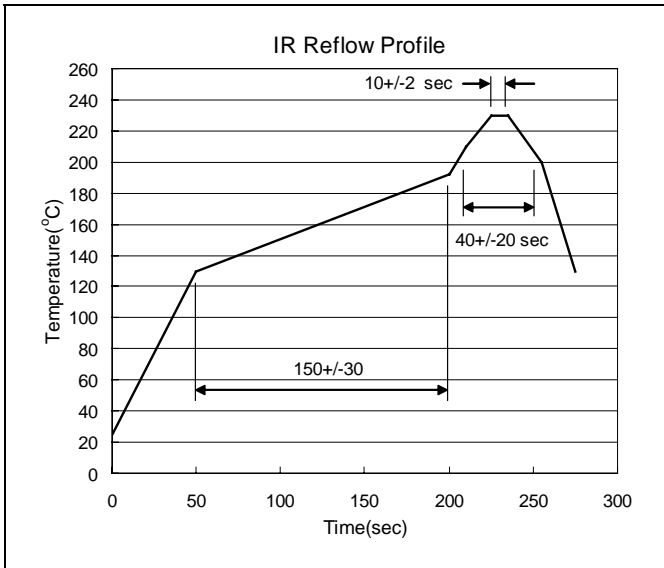
Classification of hFE

Rank	O	Y	GR
Range	70-140	120-240	200-400



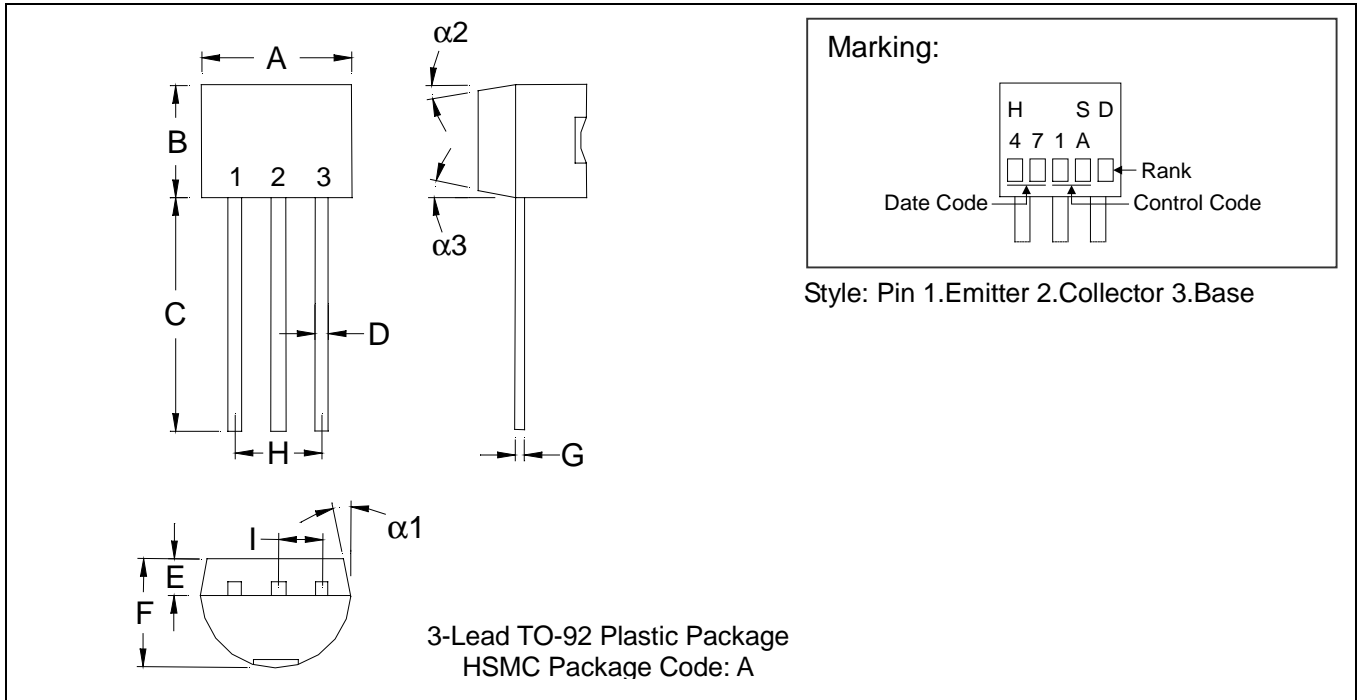
Characteristics Curve







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

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