



HSD669A

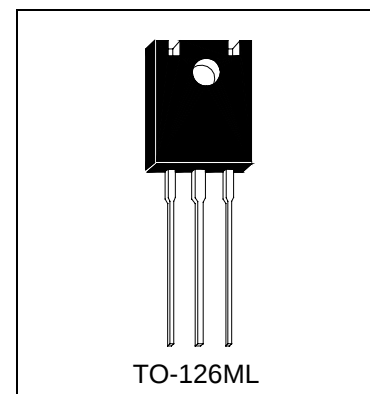
NPN EPITAXIAL PLANAR TRANSISTOR

Description

Low frequency power amplifier complementary pair with HSB649A

Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
Storage Temperature -55 ~ +150 °C
Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
Total Power Dissipation (Ta=25°C)..... 1 W
Total Power Dissipation (Tc=25°C)..... 20 W
- Maximum Voltages and Currents
BVCBO Collector to Base Voltage 180 V
BVCEO Collector to Emitter Voltage 160 V
BVEBO Emitter to Base Voltage 5 V
IC Collector Current (DC) 1.5 A
IC Collector Current (Pulse) 3 A



Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	180	-	-	V	IC=1mA, IE=0
BVCEO	160	-	-	V	IC=10mA, IB=0
BVEBO	5	-	-	V	IE=1mA, IC=0
ICBO	-	-	10	uA	VCB=160V, IE=0
*VCE(sat)	-	-	1	V	IC=500mA, IB=50mA
VBE(on)	-	-	1.5	V	IC=150mA, VCE=5V
*hFE1	100	-	320		IC=150mA, VCE=5V
*hFE2	30	-	-		IC=500mA, VCE=5V
fT	-	140	-	MHz	IC=150mA, VCE=5V
Cob	-	14	-	pF	VCB=10V, f=1MHz, IE=0

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

Thermal Characteristics

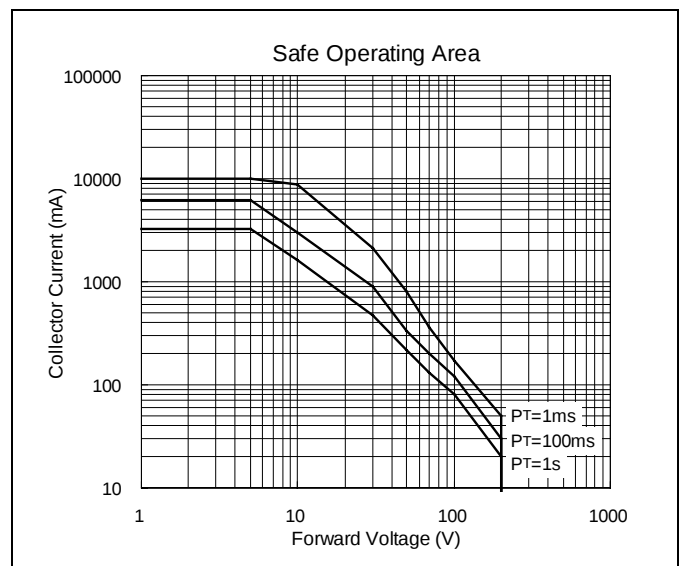
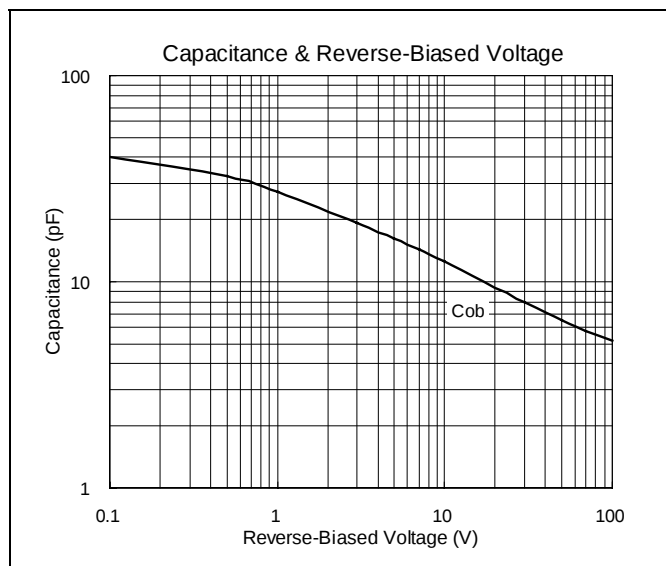
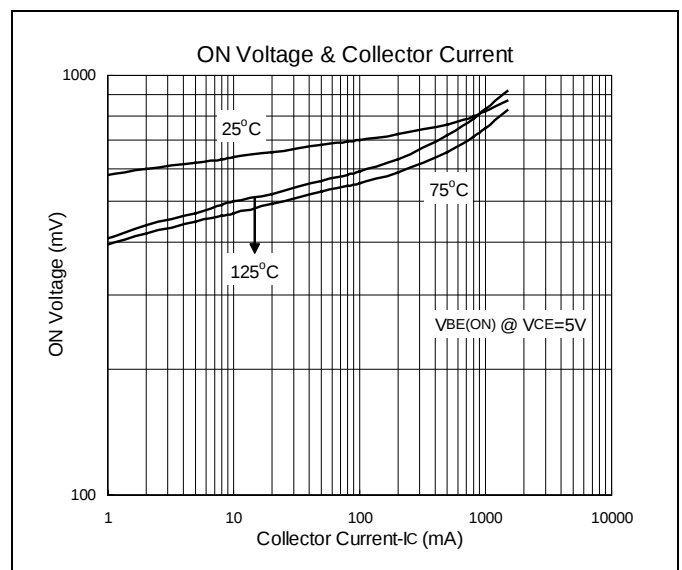
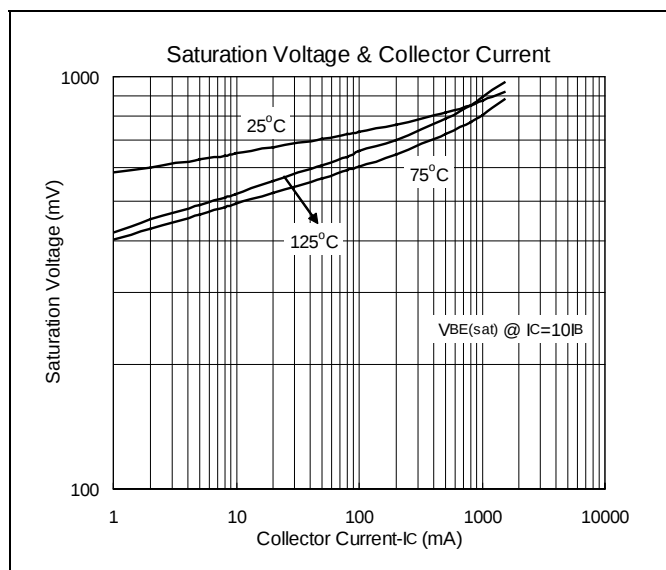
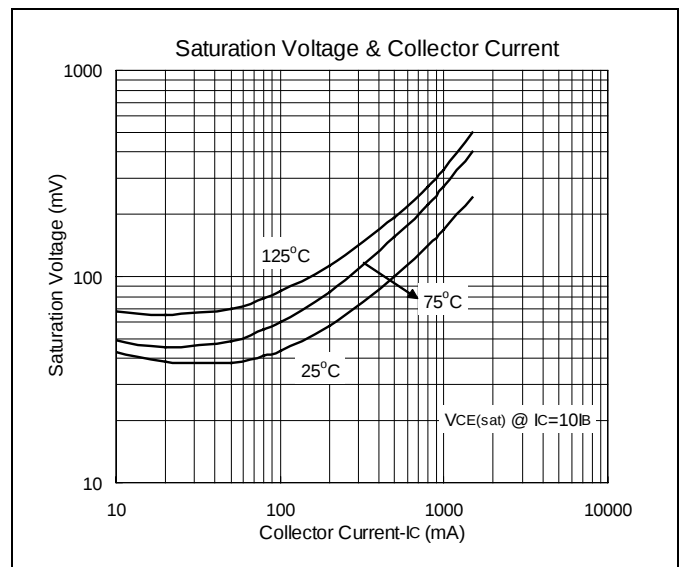
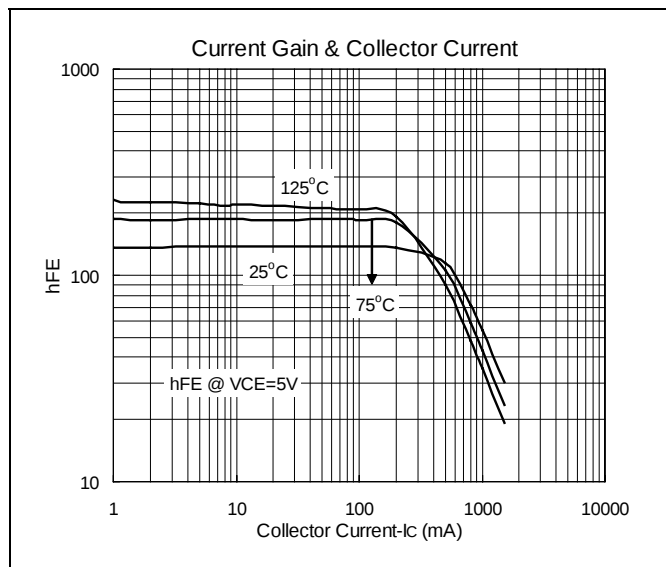
Symbol	Parameter	Value	Unit
Rth-ja	Thermal resistance from junction to ambient	125	°C/W
Rth-jc	Thermal resistance from junction to case	6.25	°C/W

Classification Of hFE1

Rank	C	D
Range	100-200	180-320

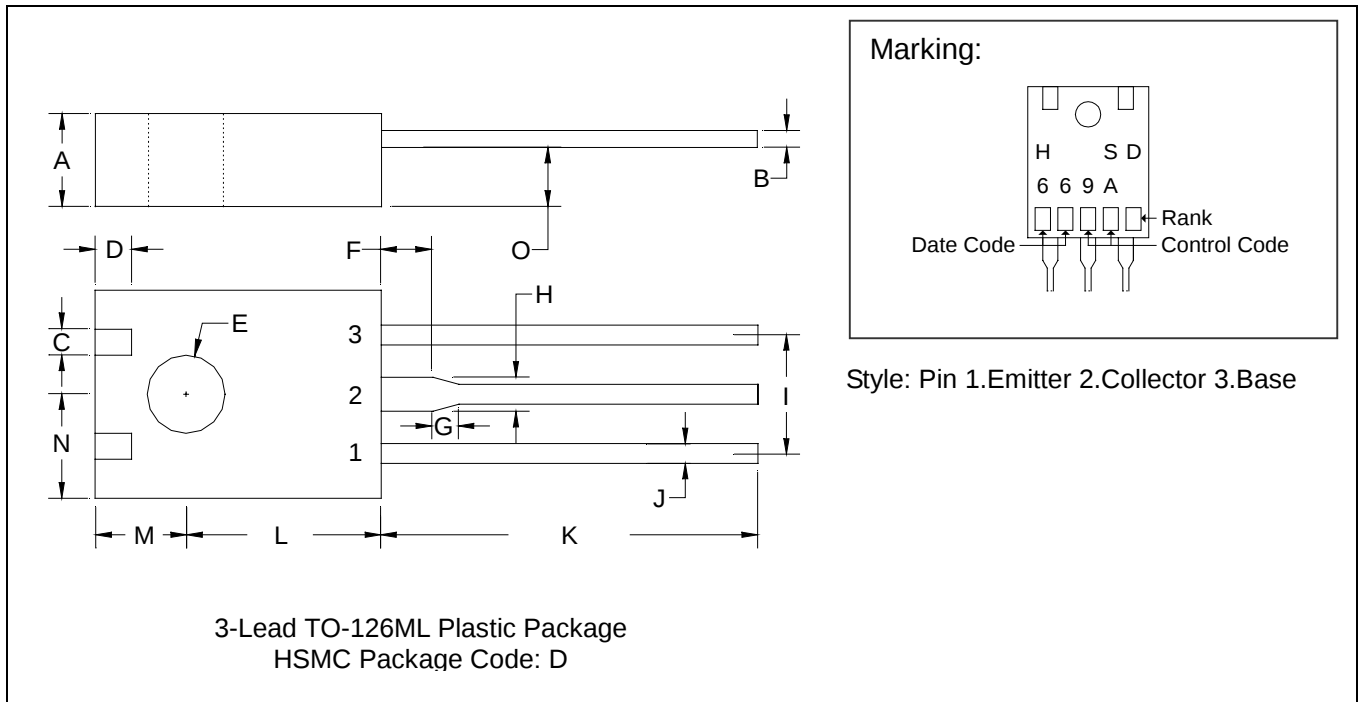


Characteristics Curve





TO-126ML Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1356	0.1457	3.44	3.70	I	-	*0.1795	-	*4.56
B	0.0170	0.0272	0.43	0.69	J	0.0268	0.0331	0.68	0.84
C	0.0344	0.0444	0.87	1.12	K	0.5512	0.5906	14.00	15.00
D	0.0501	0.0601	1.27	1.52	L	0.2903	0.3003	7.37	7.62
E	0.1131	0.1231	2.87	3.12	M	0.1378	0.1478	3.50	3.75
F	0.0737	0.0837	1.87	2.12	N	0.1525	0.1625	3.87	4.12
G	0.0294	0.0494	0.74	1.25	O	0.0740	0.0842	1.88	2.14
H	0.0462	0.0562	1.17	1.42					

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: L94V-0

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