



HSD1609

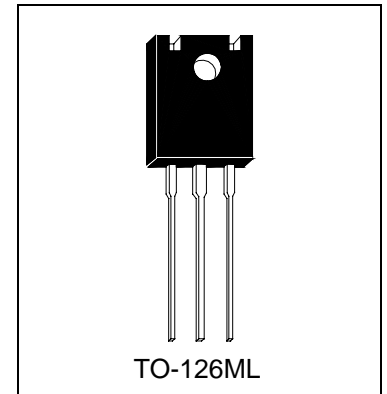
NPN EPITAXIAL PLANAR TRANSISTOR

Features

- Low frequency high voltage amplifier
- Complementary pair with HSB1109

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) 1.25 W
- Maximum Voltages and Currents
 BVCBO Collector to Base Voltage 160 V
 BVCEO Collector to Emitter Voltage 160 V
 BVEBO Emitter to Base Voltage 5 V
 IC Collector Current 100 mA



Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	160	-	-	V	IC=10uA
BVCEO	160	-	-	V	IC=1mA
BVEBO	5	-	-	V	IE=10uA
ICBO	-	-	10	uA	VCB=140V
*VCE(sat)	-	-	2	V	IC=30mA, IB=3mA
VBE(on)	-	-	1.5	V	IC=10mA, VCE=5V
*hFE1	60	-	320		IC=10mA, VCE=5V
*hFE2	30	-	-		IC=1mA, VCE=5V
fT	145	-	-	MHz	IC=10mA, VCE=5V
Cob	-	3.8	-	pF	VCB=10V, f=1MHz

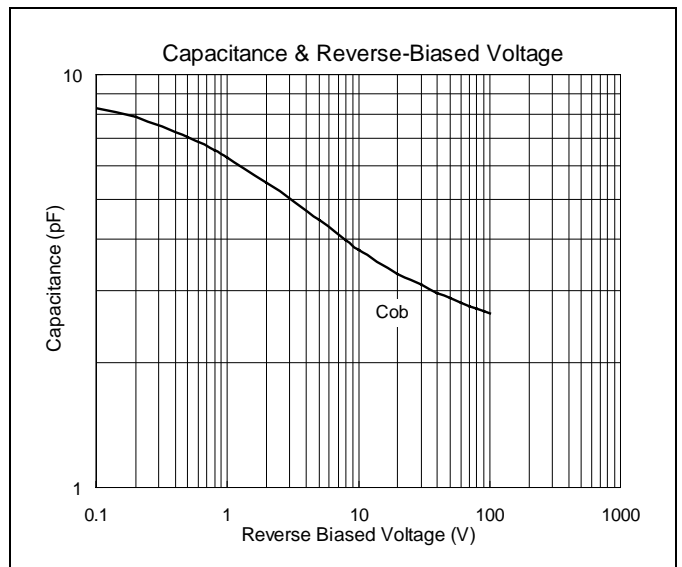
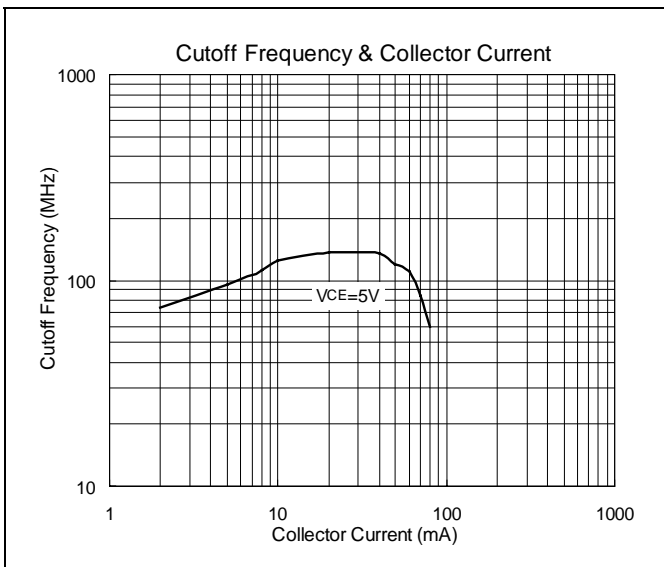
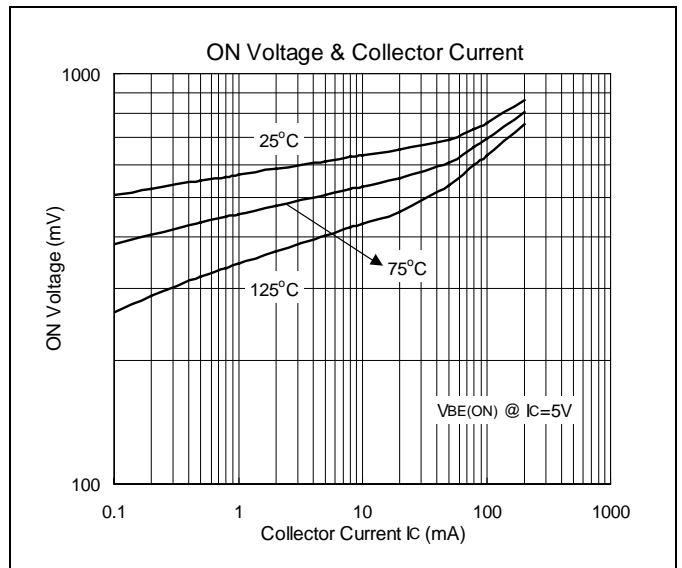
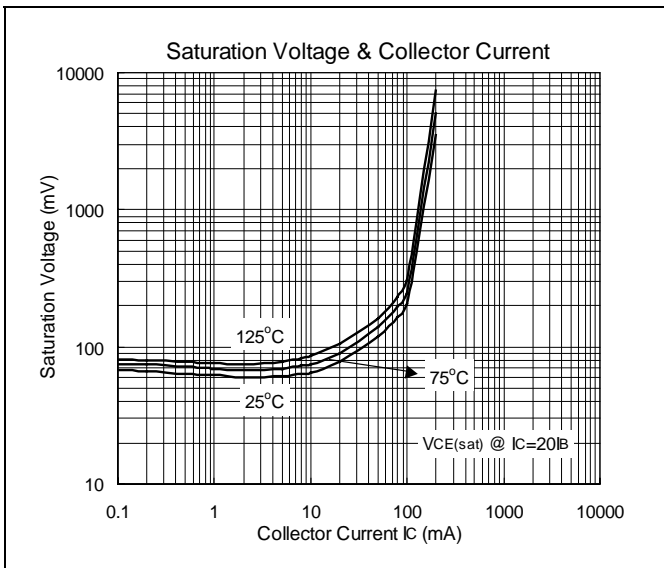
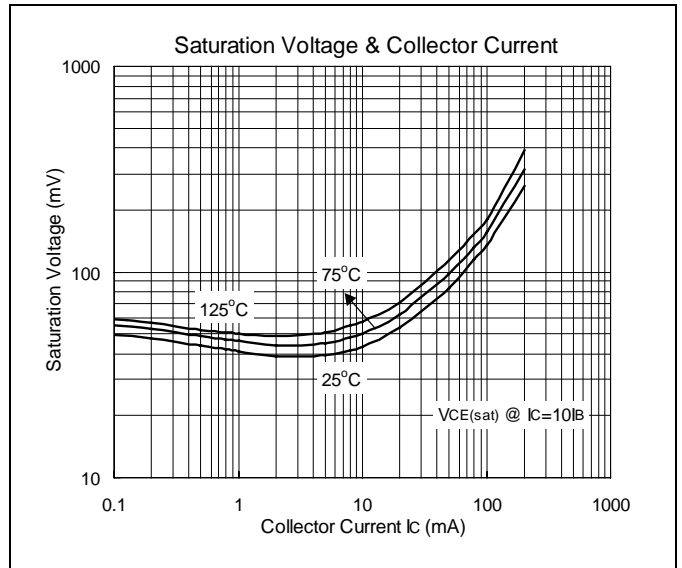
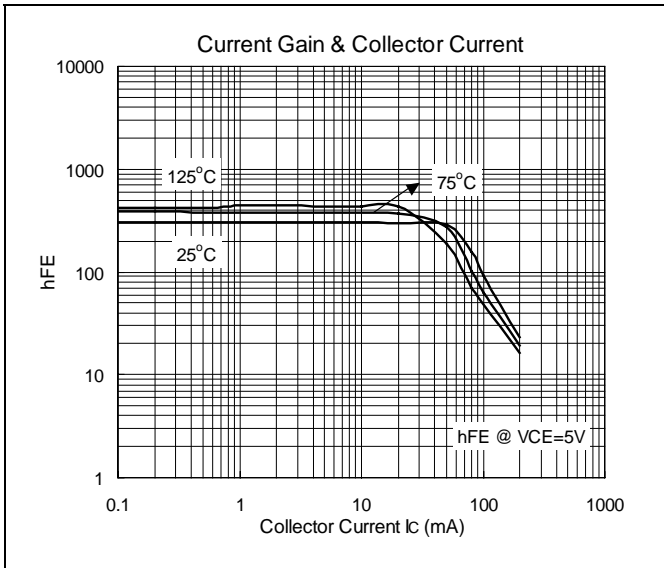
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

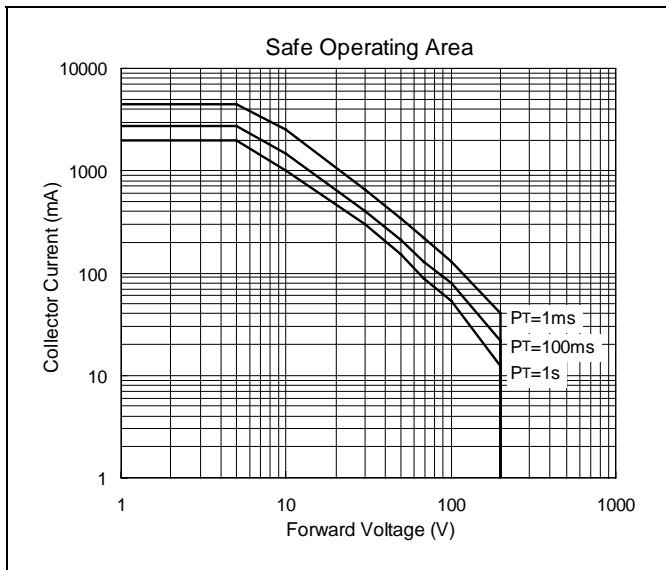
Classification Of hFE1

Rank	B	C	D
Range	60-120	100-200	160-320



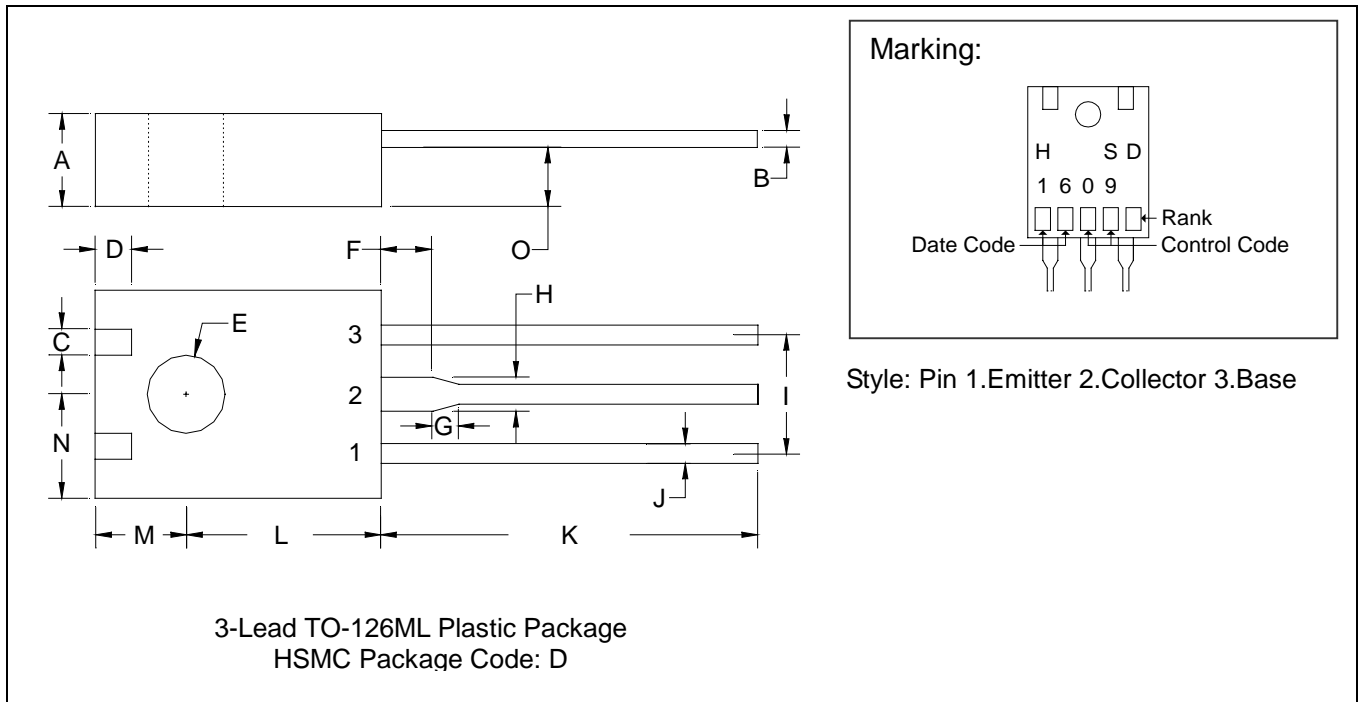
Characteristics Curve







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: UL94V-0

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