



# HSA1538

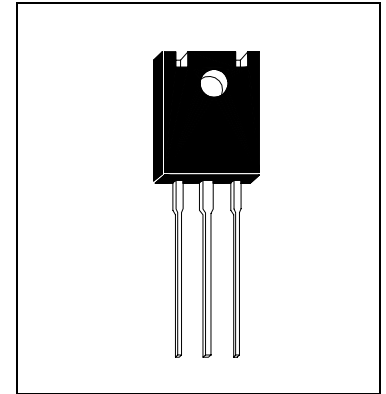
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HSA1538 is designed for high-definition CRT display video output, wide-band amplifier.

## Features

- High  $f_T$ :  $f_T=500\text{MHz}$
- High breakdown voltage:  $BV_{CEO}=120\text{Vmin}$
- Small reverse transfer capacitance



## 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) ..... 1.3 W
  - Total Power Dissipation (Tc=25°C) ..... 8 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... -120 V
  - BVCEO Collector to Emitter Voltage ..... -120 V
  - BVEBO Emitter to Base Voltage ..... -3 V
  - IC Collector Current ..... -200 mA
  - Icp Peak Collector Current (Pulse) ..... -400 mA

## Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-120	-	-	V	IC=-10uA
BVCEO	-120	-	-	V	IC=-1mA
BVEBO	-3	-	-	V	IE=-100uA
ICBO	-	-	-0.1	uA	VCB=-80V, IE=0
IEBO	-	-	-0.1	uA	VBE=-2V, IC=0
*VCE(sat)	-	-	-1	V	IC=-30mA, IB=-3mA
*VBE(sat)	-	-	-1	V	IC=-30mA, IB=-3mA
*hFE1	60	160	320		IC=-10mA, VCE=-10V
*hFE2	40	-	-		IC=-100mA, VCE=-10V
fT	-	400	-	MHz	VCE=-10V, IC=-50mA
Cob	-	2.8	-	pF	VCB=-30V, f=-1MHz
Cre	-	2.2	-	pF	VCB=-30V, f=-1MHz

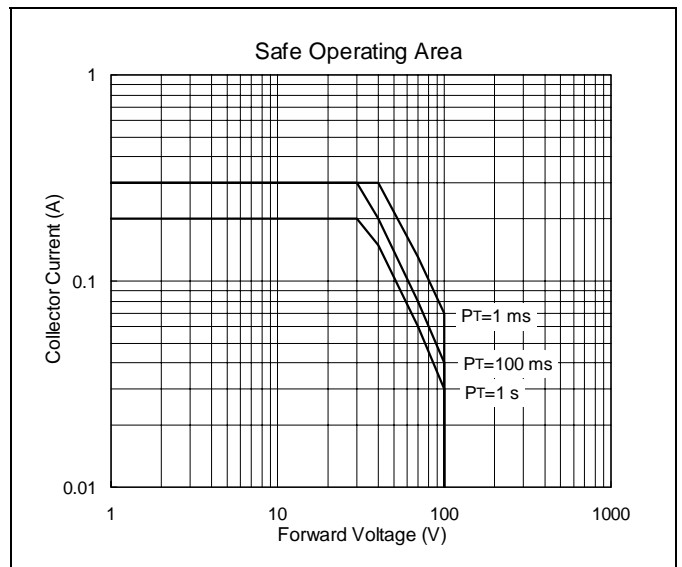
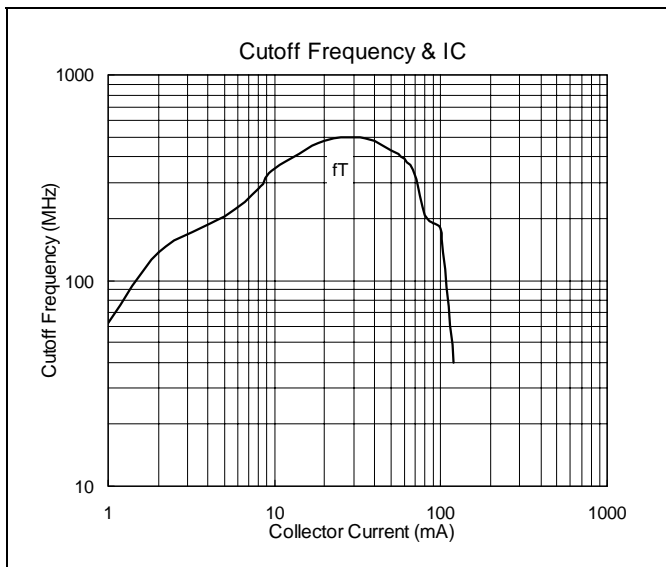
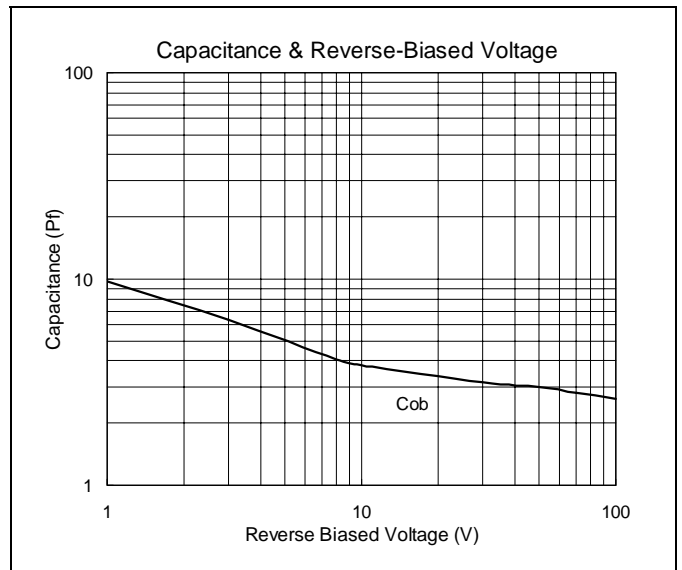
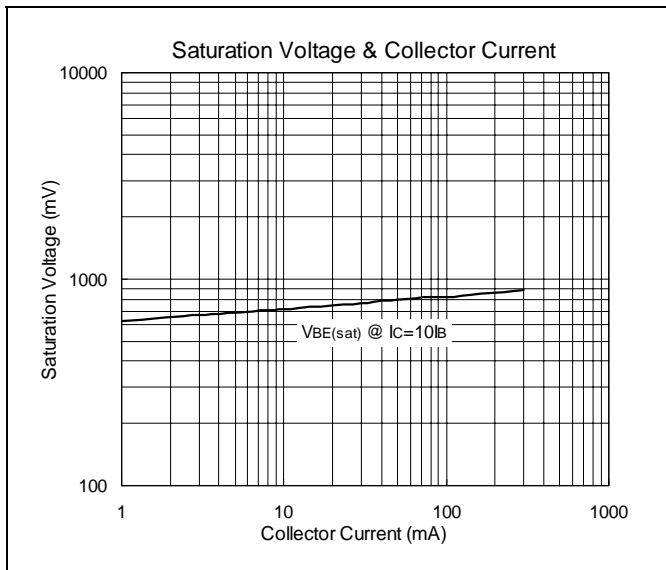
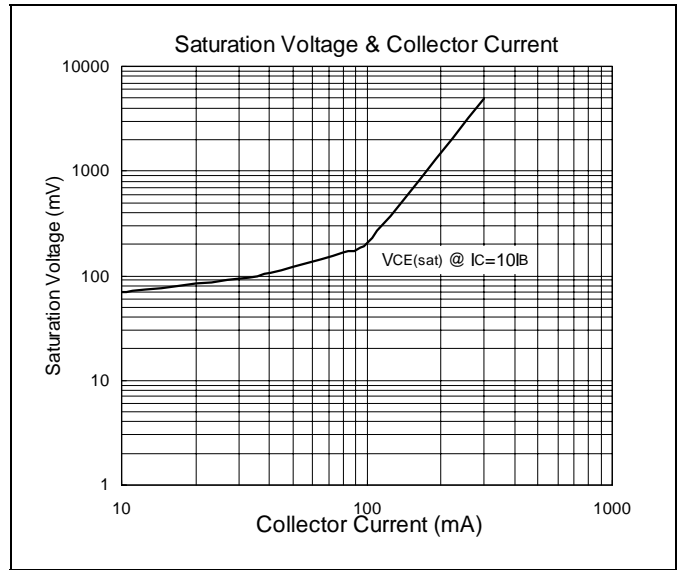
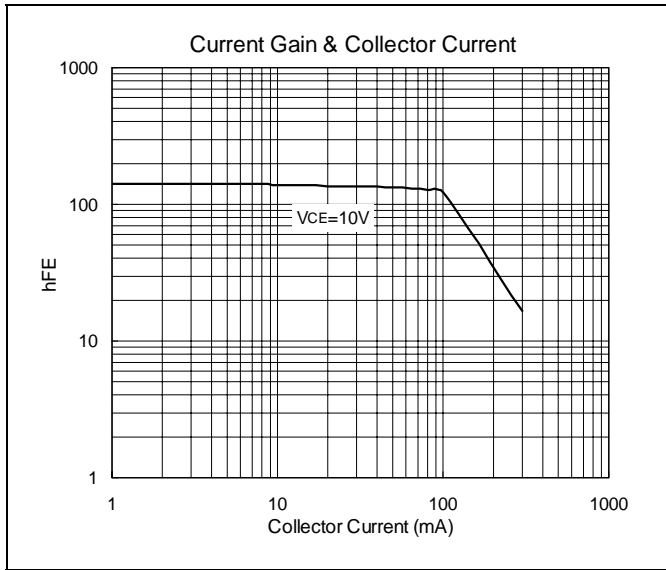
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

Rank	D	E	F
Range	60-120	100-200	160-320

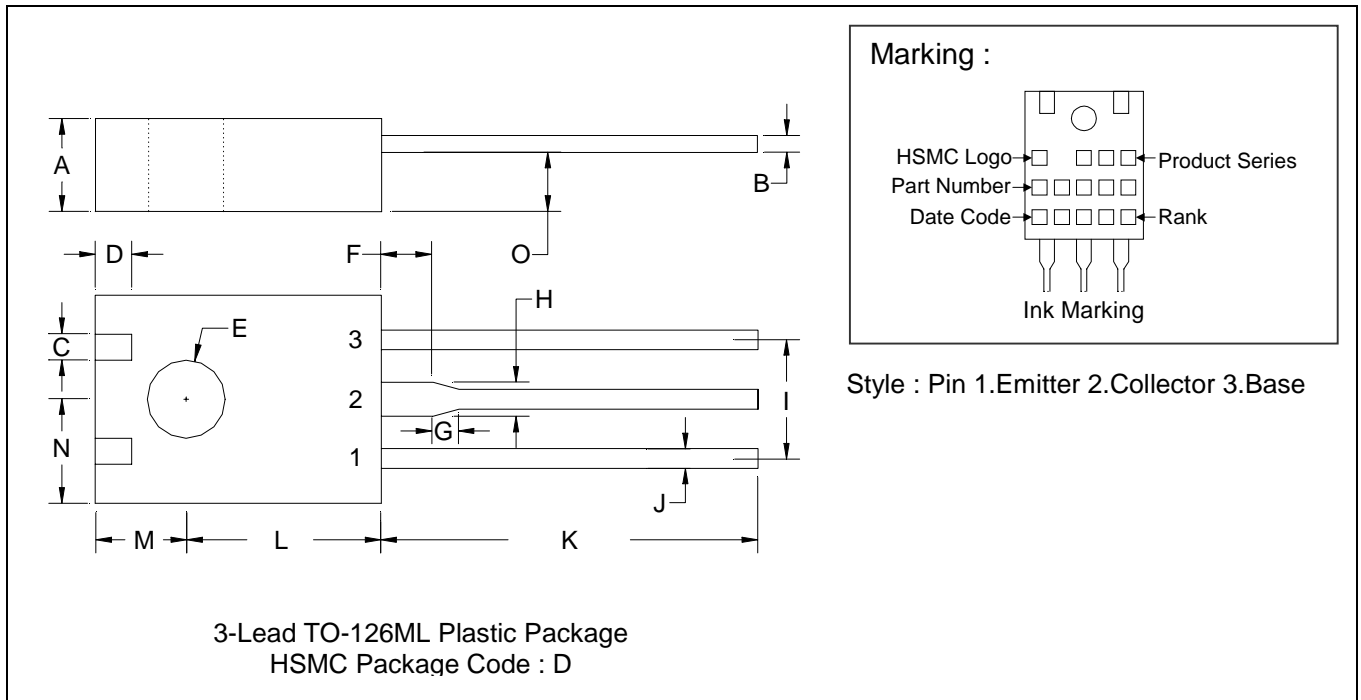


### Characteristics Curve

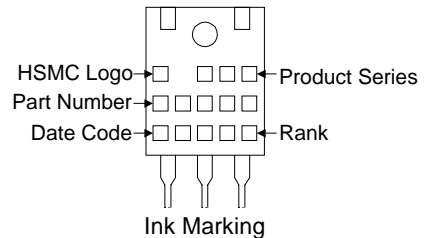




## TO-126ML Dimension



Marking :



Style : Pin 1. Emitter 2. Collector 3. Base

\*: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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**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
- **Factory 2** : No. 17-1, Ta-Tung Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C  
 Tel : 886-3-5977061 Fax : 886-3-5979220