



HJ3953

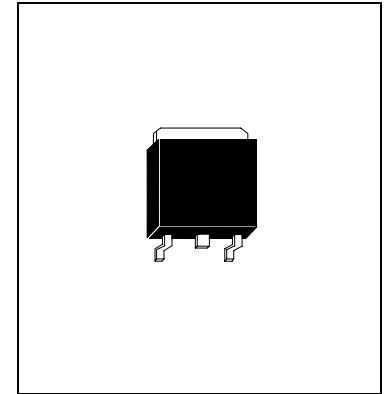
NPN EPITAXIAL PLANAR TRANSISTOR

Description

High-definition CRT display video output, wide-band amp,

Features

- High f_T : $f_T = 400\text{MHz}$
- High breakdown voltage: $V_{CEO} = 120\text{V}$ (min)
- Small reverse transfer capacitance and excellent HF response



Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 1.3 W
- Maximum Voltages and Currents
 V_{CEO} Collector to Emitter Voltage 120 V
 V_{CBO} Collector to Emitter Voltage 120 V
 V_{EBO} Emitter to Base Voltage 3 V
 I_C Collector Current (DC) 200 mA

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	120	-	-	V	$I_C = 100\mu\text{A}$, $I_E = 0$
V_{CEO}	120	-	-	V	$I_C = 1\text{mA}$, $I_B = 0$
V_{EBO}	3	-	-	V	$I_E = 100\mu\text{A}$, $I_C = 0$
I_{CBO}	-	-	100	nA	$V_{CB} = 80\text{V}$, $I_E = 0$
I_{EBO}	-	-	100	nA	$V_{EB} = 2\text{V}$, $I_C = 0$
* $V_{CE(sat)}$	-	-	1	V	$I_C = 30\text{mA}$, $I_B = 3\text{mA}$
* $V_{BE(sat)}$	-	-	1	V	$I_C = 30\text{mA}$, $I_B = 3\text{mA}$
* h_{FE1}	60	160	320		$V_{CE} = 10\text{V}$, $I_C = 10\text{mA}$
* h_{FE2}	40	-	-		$V_{CE} = 10\text{V}$, $I_C = 100\text{mA}$
f_T	400	-	-	MHz	$V_{CE} = 10\text{V}$, $I_C = 50\text{mA}$
Cob	2.1	-	-	pF	$V_{CB} = 30\text{V}$, $f = 1\text{MHz}$

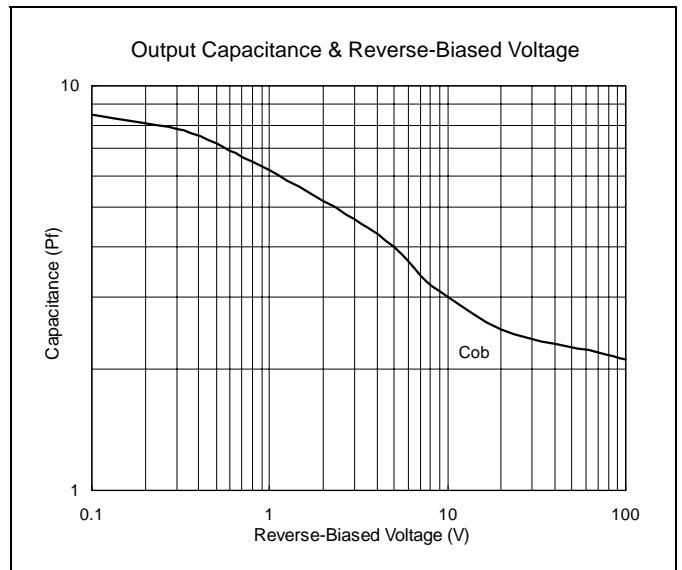
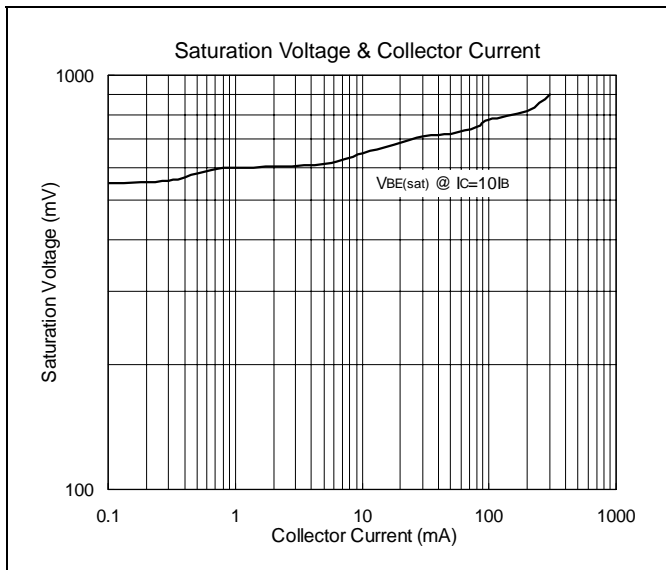
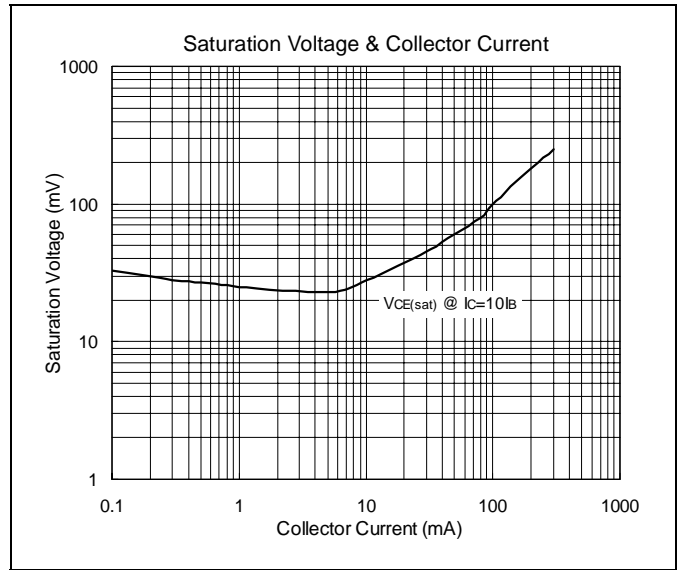
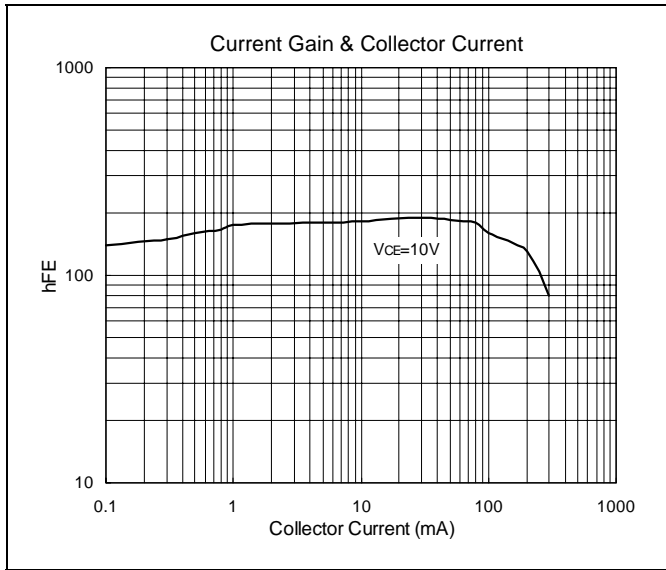
*Pulse Test : Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

Classification Of h_{FE1}

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

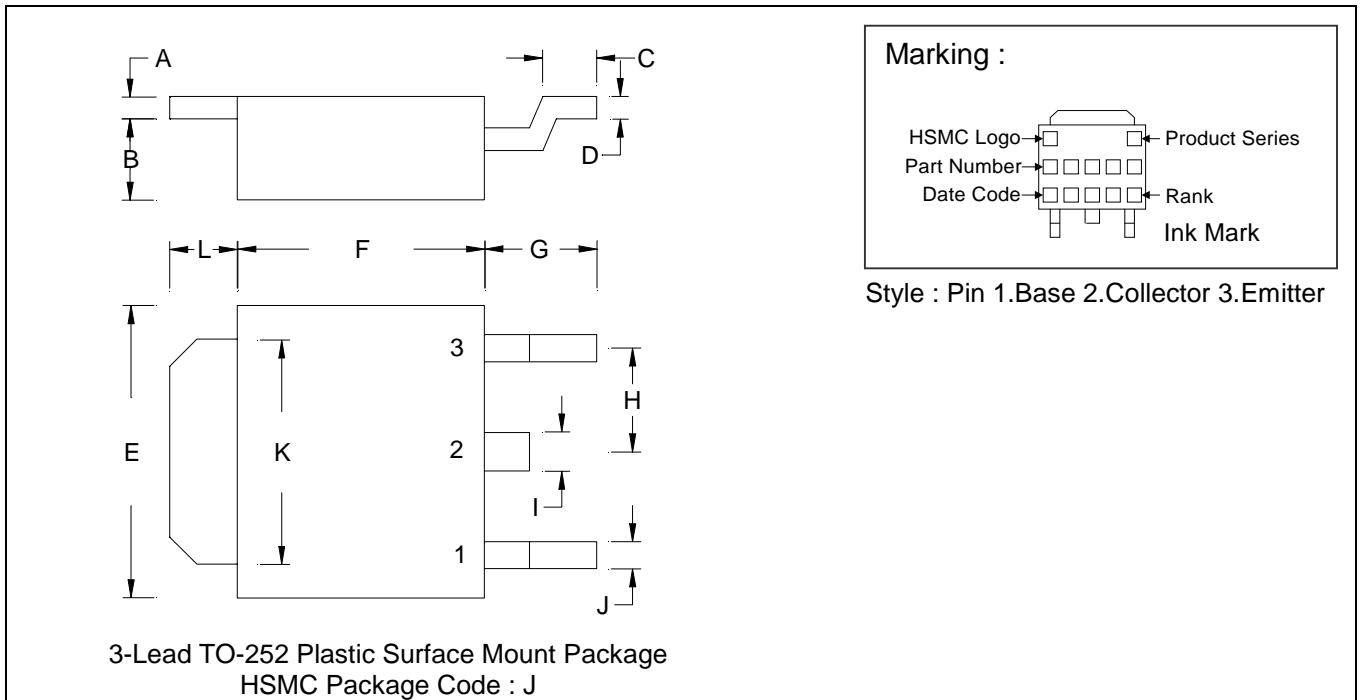


Characteristics Curve





TO-252 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.0866	0.1102	2.20	2.80
B	0.0650	0.0768	1.65	1.95	H	-	*0.0906	-	*2.30
C	0.0354	0.0591	0.90	1.50	I	-	0.0354	-	0.90
D	0.0177	0.0236	0.45	0.60	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2125	0.2283	5.40	5.80	L	0.0551	0.0630	1.40	1.60

Notes : 1.Dimension and tolerance based on our Spec. dated May. 05,1996.
 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

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

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