



HSC3953

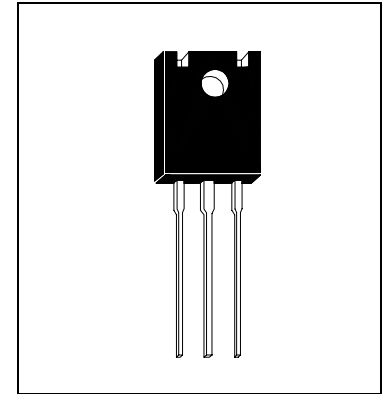
NPN EPITAXIAL PLANAR TRANSISTOR

Description

High-definition CRT display video output, wide-band amplifier.

Features

- High f_T : 500MHz
- High Breakdown Voltage: $BV_{CEO}=120V_{min}$
- Small Reverse Transfer Capacitance & Excellent HF Response: $C_{re}=1.7pF$



Absolute Maximum Ratings ($T_a=25^\circ C$)

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation ($T_a=25^\circ C$) 1.3 W
 Total Power Dissipation ($T_c=25^\circ C$) 8 W
- Maximum Voltages and Currents
 BVC_{BO} Collector to Base Voltage 120 V
 BV_{CEO} Collector to Emitter Voltage 120 V
 BVE_{BO} Emitter to Base Voltage 3 V
 I_C Collector Current 200 mA
 I_{cp} Peak Collector Current 400 mA

Electrical Characteristics ($T_a=25^\circ C$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVC_{BO}	120	-	-	V	$I_C=100\mu A, I_E=0$
BV_{CEO}	120	-	-	V	$I_C=1mA, I_B=0$
BVE_{BO}	3	-	-	V	$I_E=100\mu A, I_C=0$
I_{CBO}	-	-	0.1	μA	$V_{CB}=120V, I_E=0$
I_{EBO}	-	-	0.1	μA	$V_{EB}=2V$
* $V_{CE(sat)}$	-	-	1	V	$I_C=30mA, I_B=3mA$
* $V_{BE(sat)}$	-	-	1	V	$I_C=30mA, I_B=3mA$
* h_{FE1}	60	-	320		$I_C=10mA, V_{CE}=10V$
* h_{FE2}	40	-	-		$I_C=100mA, V_{CE}=10V$
f_T	-	400	-	MHz	$I_C=50mA, V_{CE}=10V$

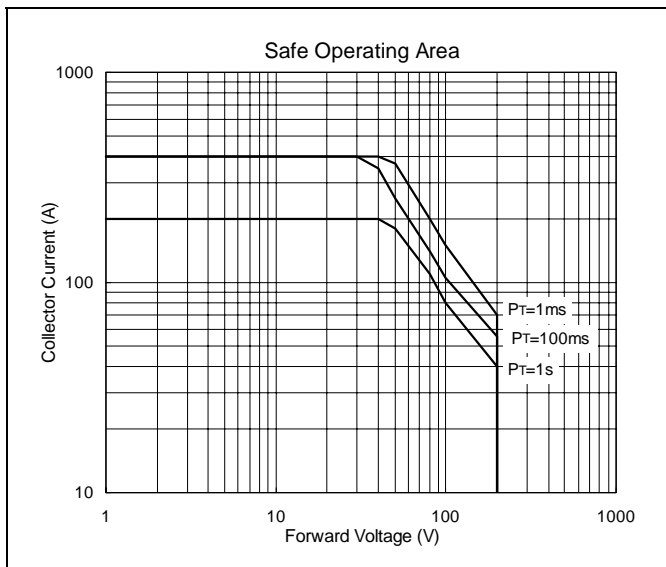
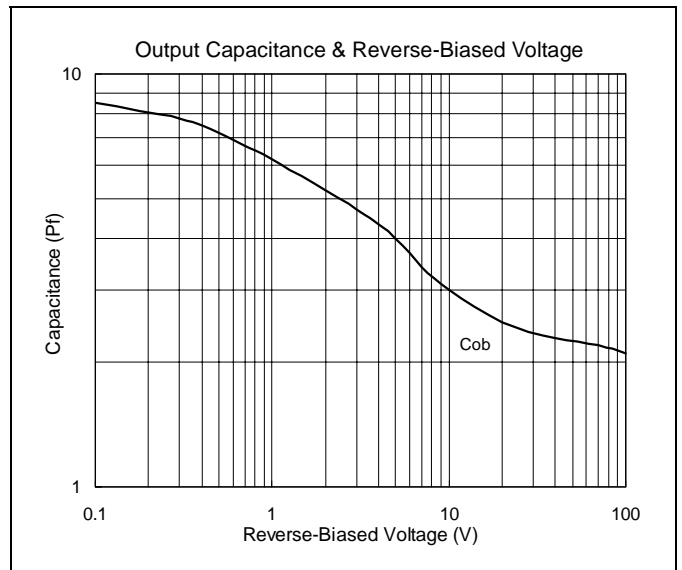
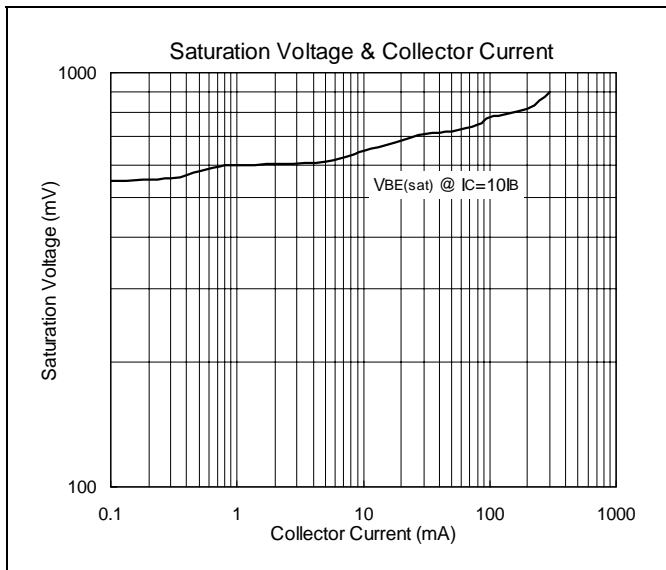
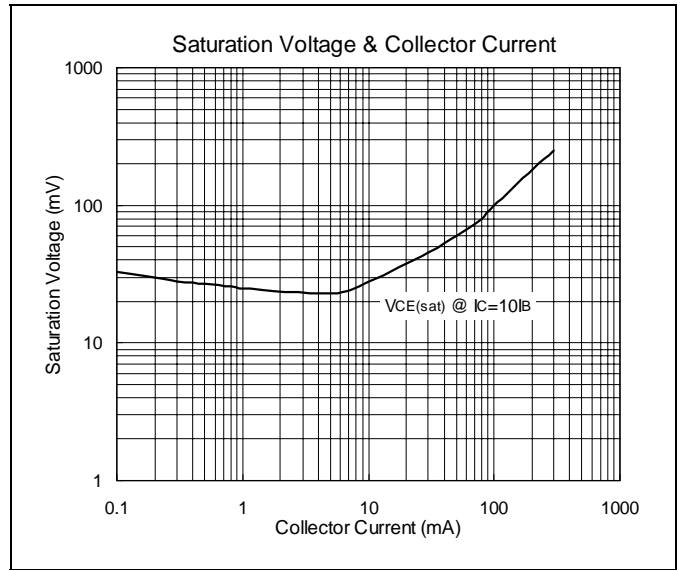
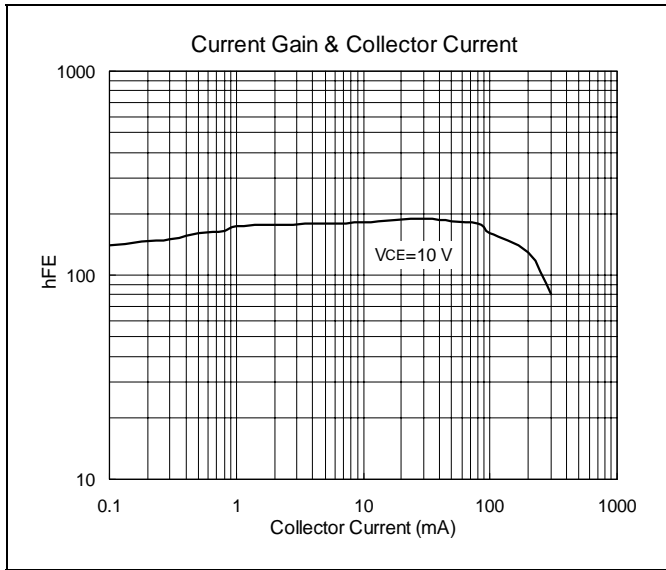
*Pulse Test : Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

Classification Of h_{FE1}

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

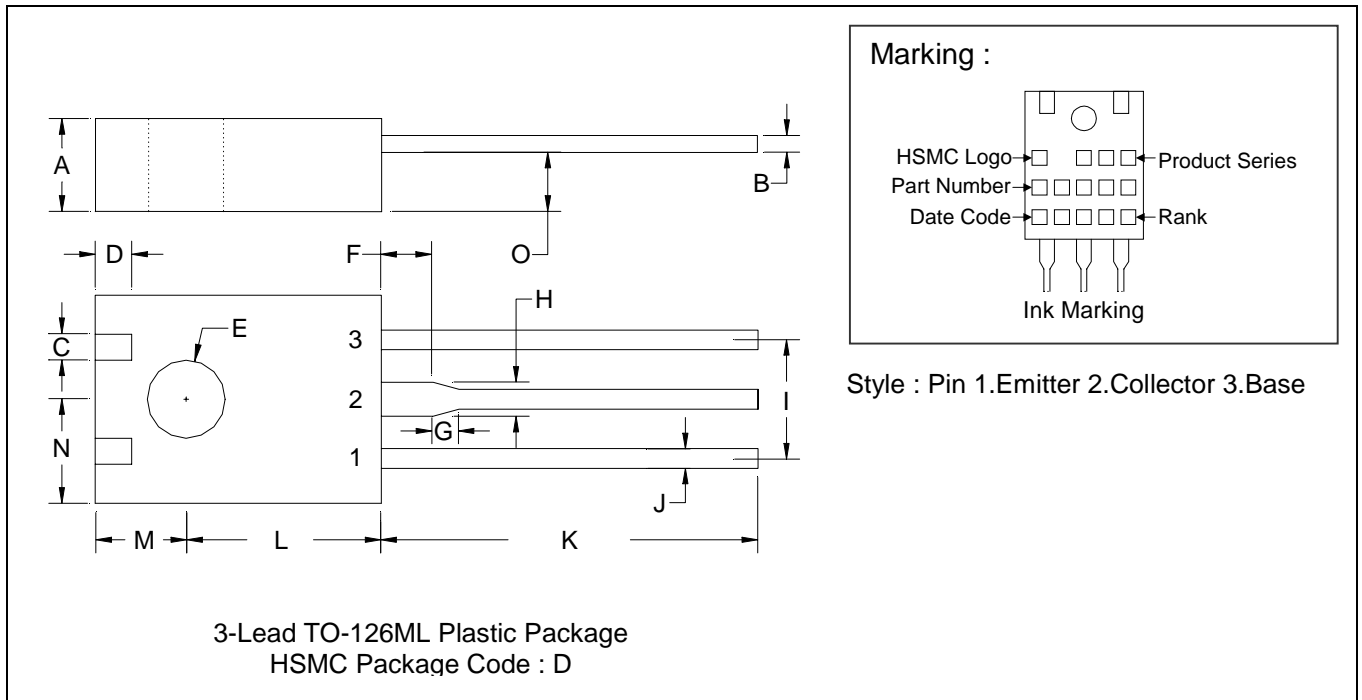


Characteristics Curve





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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