



HSA1300

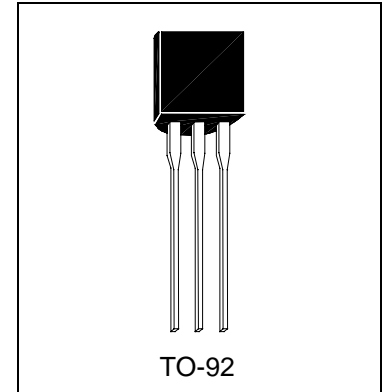
SILICON PNP EPITAXIAL TYPE

Description

- Strobe Flash Applications
- Medium Power Amplifier Applications

Features

- High DC Current Gain and Excellent hFE Linearity
- $hFE(1)=140-600$, ($V_{CE}=-1V$, $I_C=-0.5A$)
- $hFE(2)=60$ (Min.), ($V_{CE}=-1V$, $I_C=-2A$)
- Low Saturation Voltage
- $V_{CE(sat)}=-0.5V$ (Max.), ($I_C=-2A$, $I_E=-50mA$)



Absolute Maximum Ratings (Ta=25°C)

Characteristic		Symbol	Ratios	Unit
Collector-Base Voltage		VCBO	-20	V
Collector-Emitter Voltage		VCES	-20	V
		VCEO	-10	
Emitter-Base Voltage		VEBO	-6	V
Collector Current	DC	IC	-2	A
	Pulsed (Note 1)	ICP	-5	
Base Current		IB	-0.2	A
Collector Power Dissipation		PC	750	mW
Junction Temperature		Tj	150	°C
Storage Temperature Range		Tstg	-55~150	°C

Note 1 : Pulse Width=10ms(Max.), Duty Cycle=30%(Max.)

Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Condition
V(BR)CEO	-10	-	-	V	$I_C=-10mA$, $I_B=0$
V(BR)EBO	-6	-	-	V	$I_E=-1mA$, $I_C=0$
ICBO	-	-	-100	nA	$V_{CE}=-20V$, $I_E=0$
IEBO	-	-	-100	nA	$V_{BE}=-6V$, $I_C=0$
*hFE1	140	-	1000		$V_{CE}=-1V$, $I_C=-0.5A$
*hFE2	60	-	-		$V_{CE}=-1V$, $I_C=-2A$
*VCE(sat)	-	-	-0.5	V	$I_C=-2A$, $I_B=-50mA$
VBE	-	-0.83	-1.5	V	$V_{CE}=-1V$, $I_C=-2A$
fT	-	140	-	MHz	$V_{CE}=-1V$, $I_C=-0.5A$
Cob	-	50	-	pF	$V_{CE}=-10V$, $I_E=0$, $f=1KHZ$

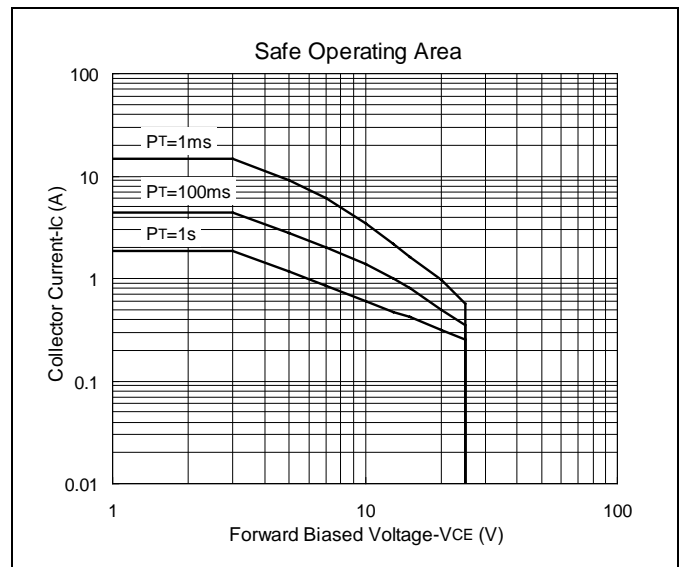
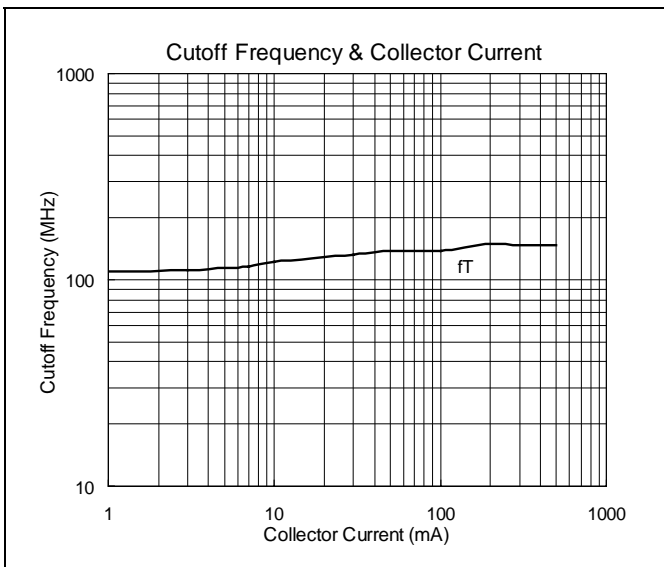
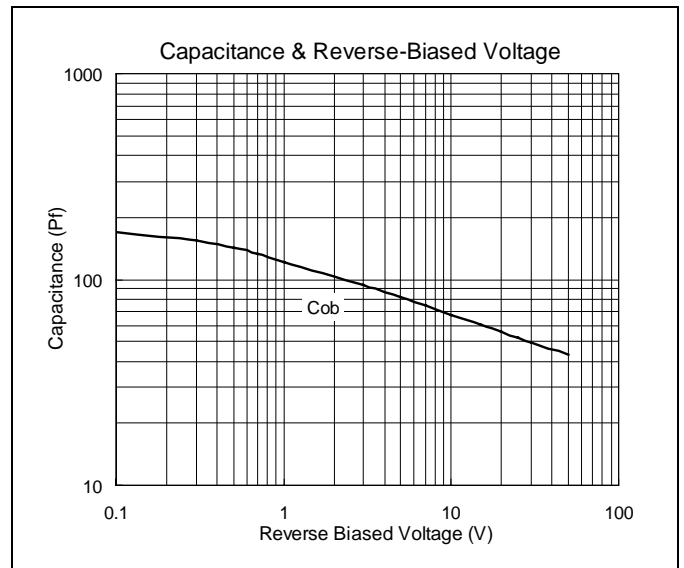
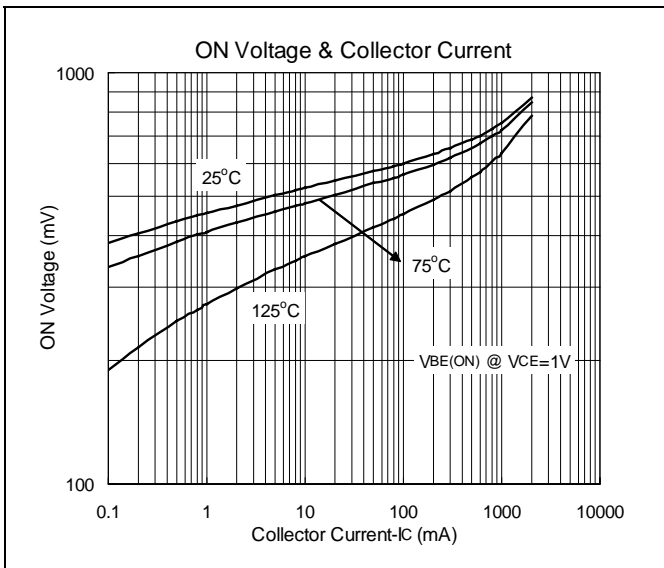
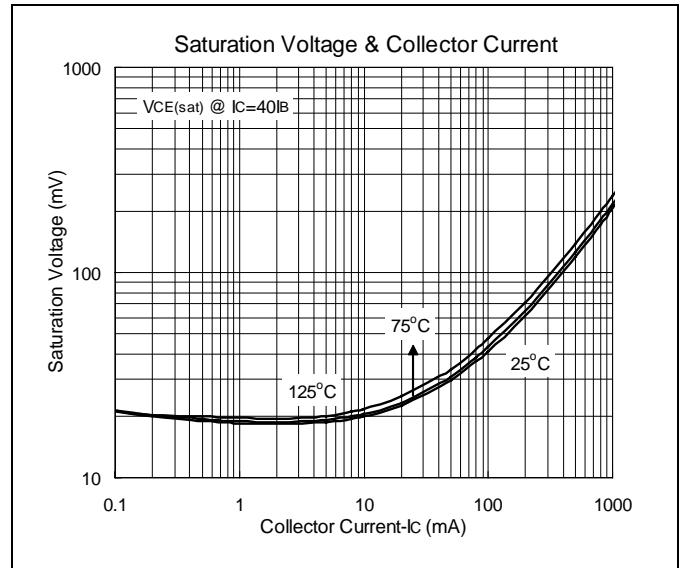
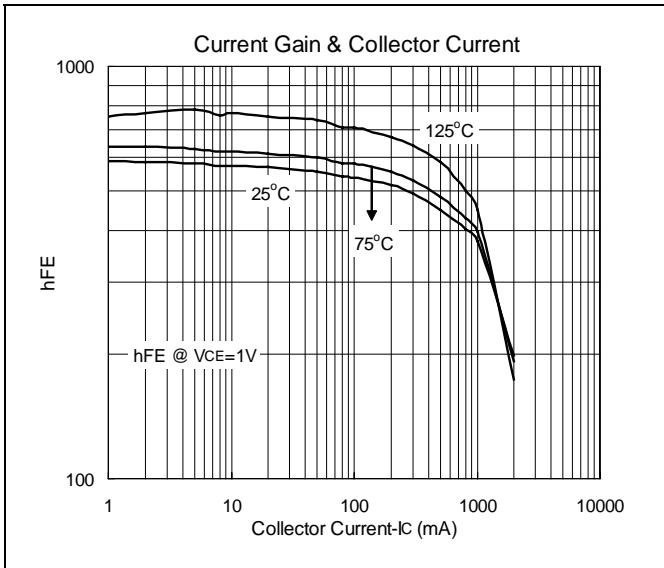
*Pulse Test: Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

Classifications of hFE1

Rank	Y	GR	BL	PE
hFE1	140-280	200-400	300-600	500~1000

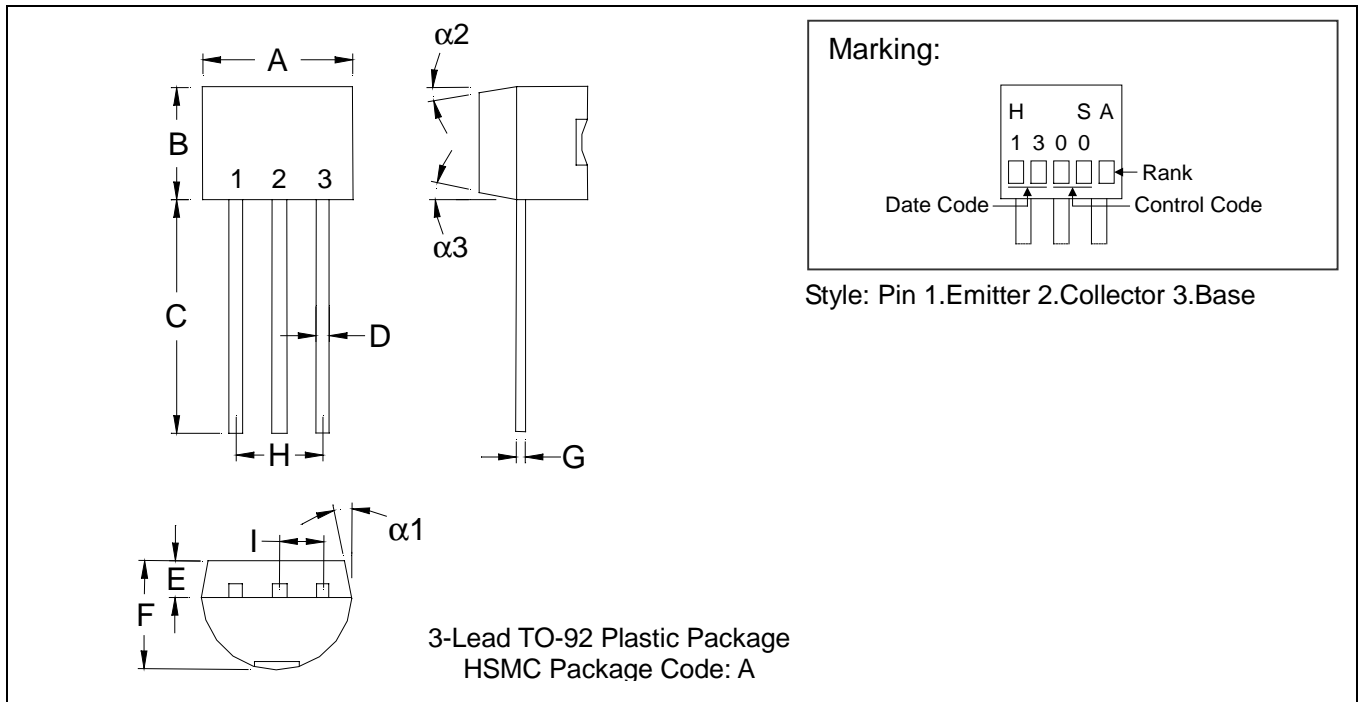


Characteristics Curve





TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

- Notes:**
- 1.Dimension and tolerance based on our Spec. dated Apr. 25,1996.
 - 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

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