

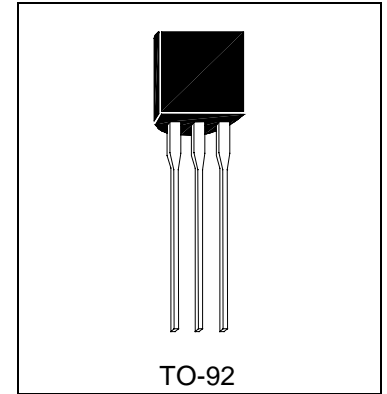


# HAD825

NPN EPITAXIAL PLANAR TRANSISTOR

## Features

Darlington transistor.



## Absolute Maximum Ratings

- Maximum Temperatures  
Storage Temperature ..... -55 ~ +150 °C  
Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipations  
Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 80 V  
VCES Collector to Emitter Voltage ..... 55 V  
VEBO Emitter to Base Voltage ..... 12 V  
IC Collector Current..... 600mA

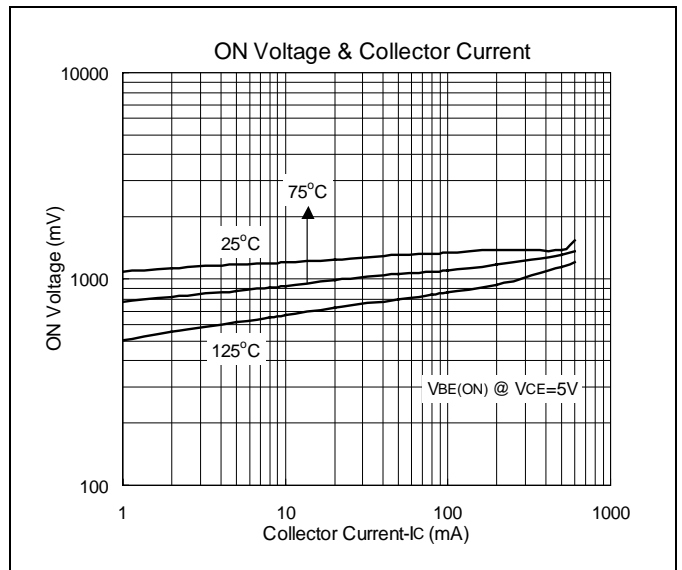
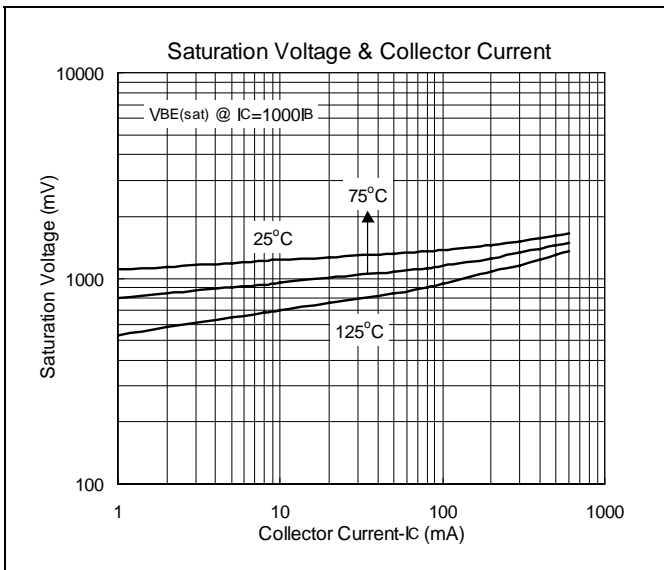
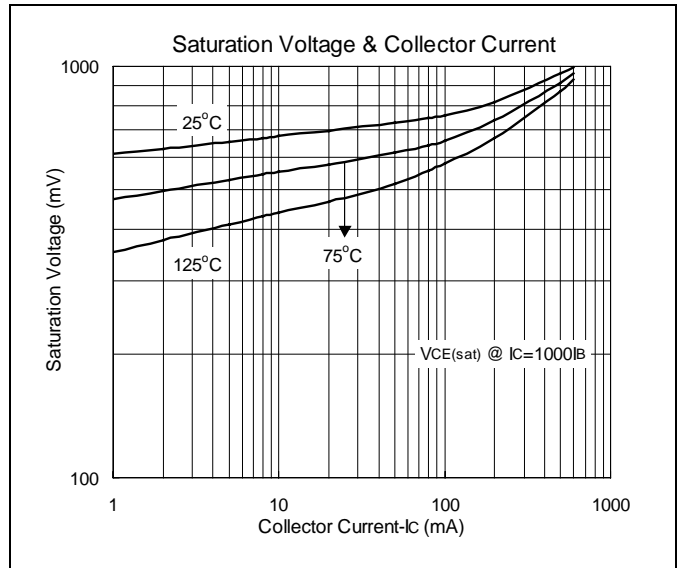
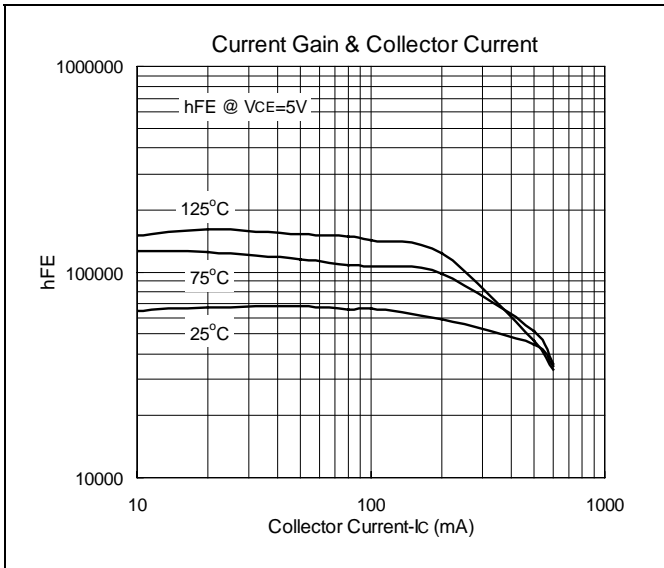
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	80	-	-	V	IC=100uA
BVCES	55	-	-	V	IC=100uA
BVEBO	12	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=60V
IEBO	-	-	100	nA	VEB=10V
ICES	-	-	500	nA	VCE=60V
*VCE(sat)	-	-	1.2	V	IC=10mA, IB=0.01mA
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
VBE(on)	-	-	1.5	V	IC=100mA, VCE=5V
*hFE1	10K	-	-		IC=10mA, VCE=5V
*hFE2	10K	-	100K		IC=100mA, VCE=5V
fT	125	-	-	MHz	IC=10mA, VCE=5V f=100MHz
Cob	-	-	8	pF	VCB=10V, f=1MHz

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

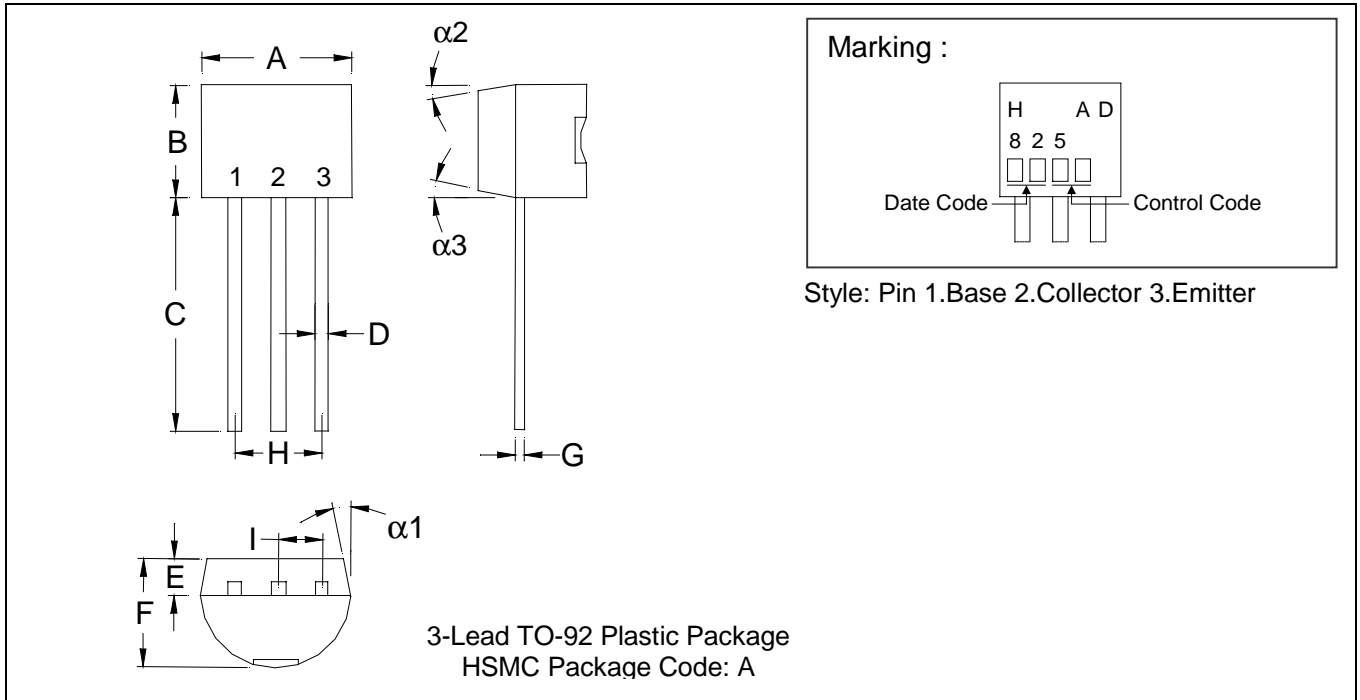


### Characteristics Curve





### 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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