



# HSD879

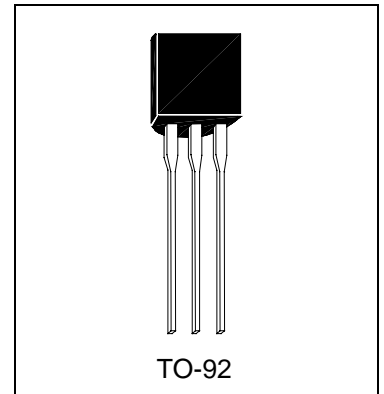
SILICON NPN EPITAXIAL TYPE TRANSISTOR

## Description

For 1.5V and 3v electronic flash use.

## Features

- Charger-up time is about 1 ms faster than of a germanium transistor
- Small saturation voltage can bring less power dissipation and flashing times



## Absolute Maximum Ratings

- Maximum Temperatures  
 Storage Temperature ..... -55 ~ +150 °C  
 Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation  
 Total Power Dissipation (Ta=25°C) ..... 750 mW
- Maximum Voltages and Currents (Ta=25°C)  
 BVCBO Collector to Base Voltage ..... 30 V  
 BVCEX Collector to Emitter Voltage ..... 20 V  
 BVCEO Collector to Emitter Voltage ..... 10 V  
 BVEBO Emitter to Base Voltage ..... 6 V  
 IC Collector Current ..... 3 A  
 IC Collector Current (Pluse) ..... 5 A

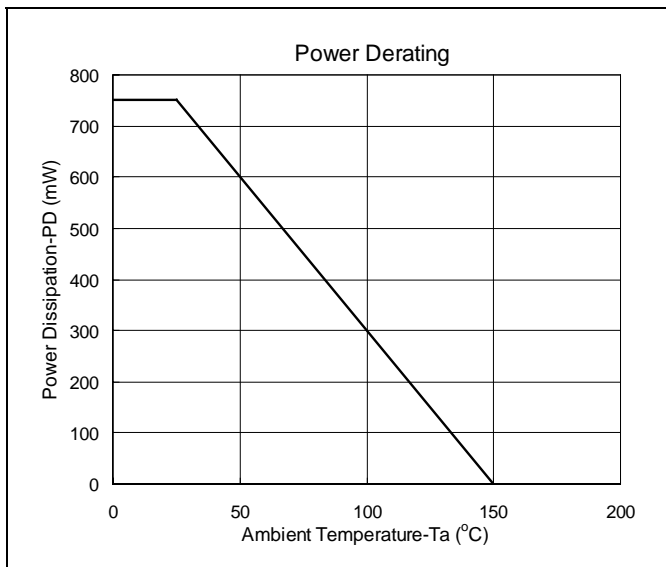
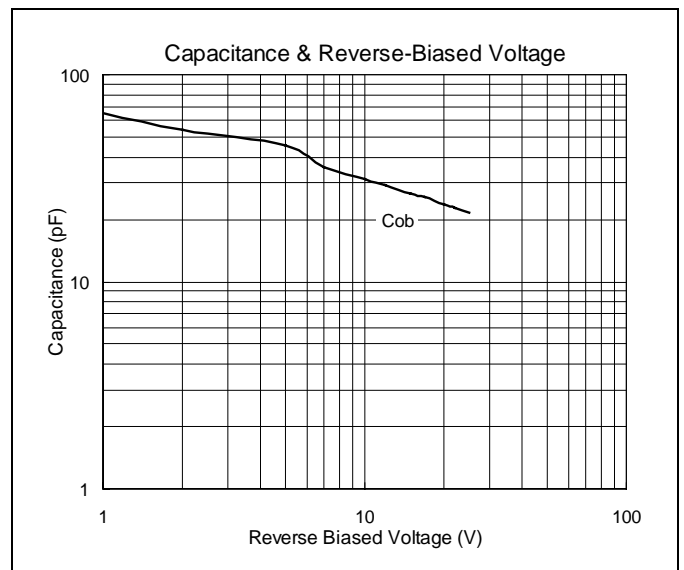
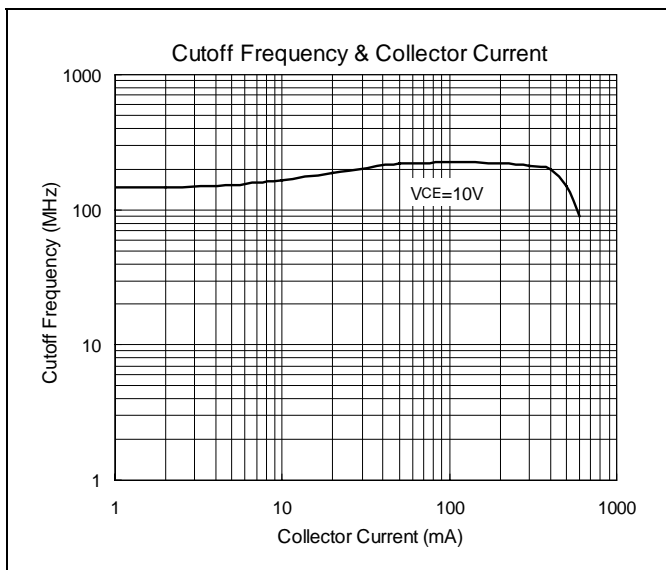
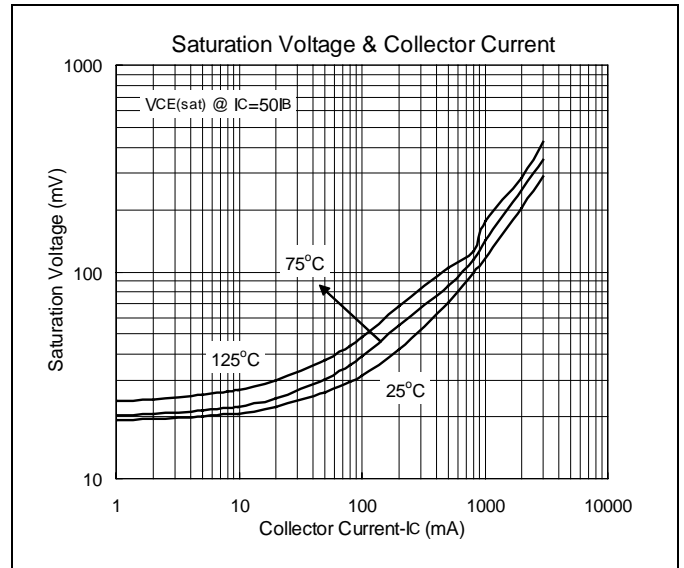
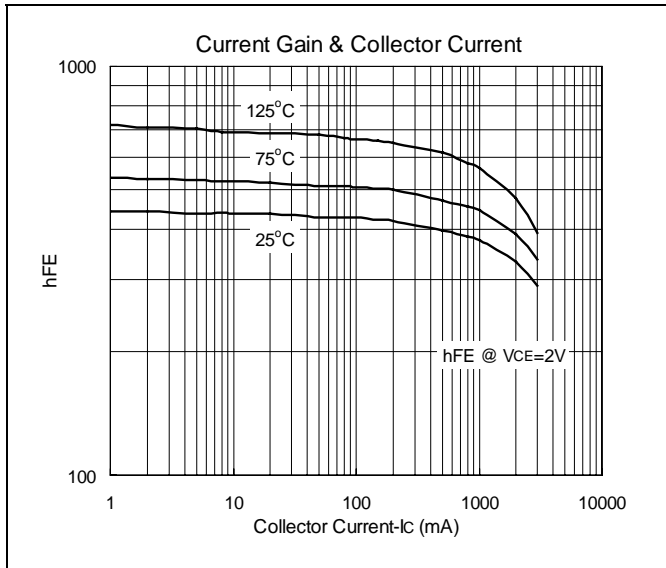
## Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Condition
BVCEO	10	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
BVCBO	30	-	-	V	IC=10uA
BVCEX	20	-	-	V	IC=1mA, VBE=3V
ICBO	-	-	100	nA	VCB=20V
IEBO	-	-	100	nA	VBE=4V
*hFE	140	210	400		VCE=2V, IC=3A
*VCE(sat)	-	0.3	0.4	V	IC=3A, IB=60mA
fT	-	200	-	MHZ	VCE=10V, IC=50mA
Cob	-	30	-	pF	VCB=10V, f=1MHZ

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

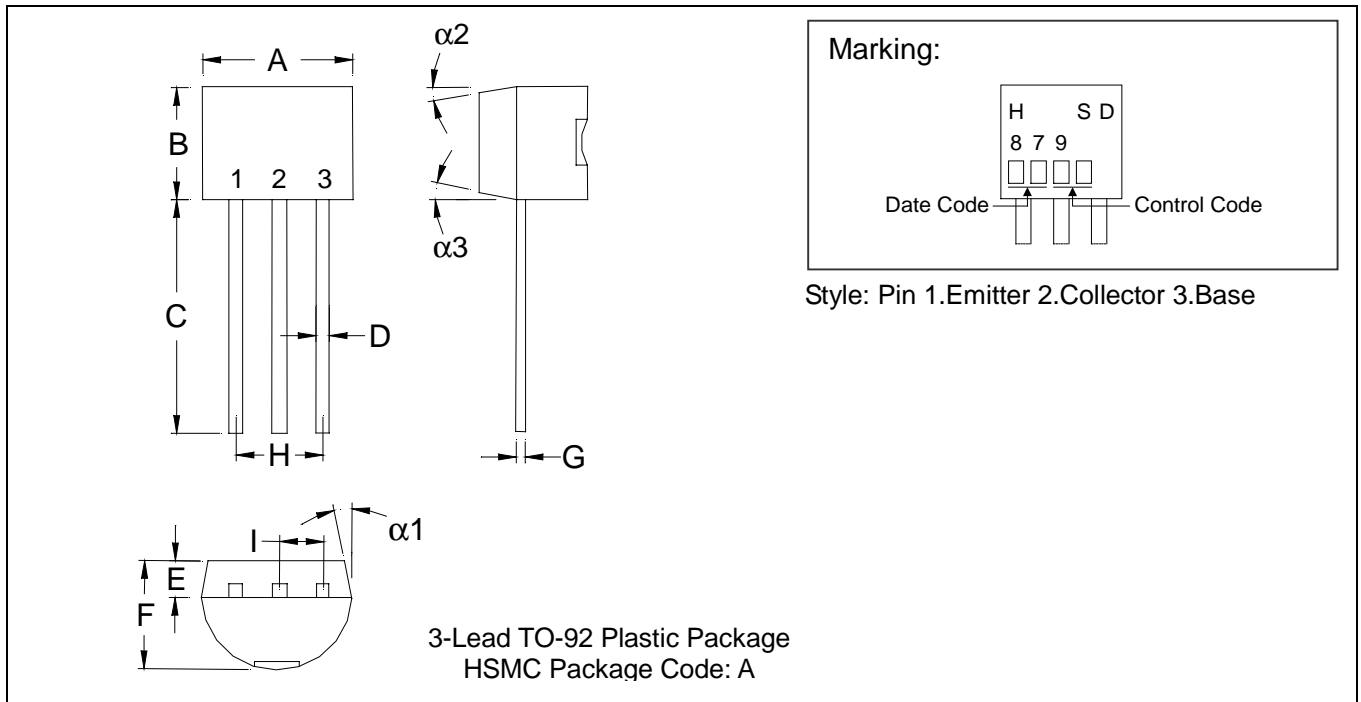


### Characteristics Curve





### 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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