

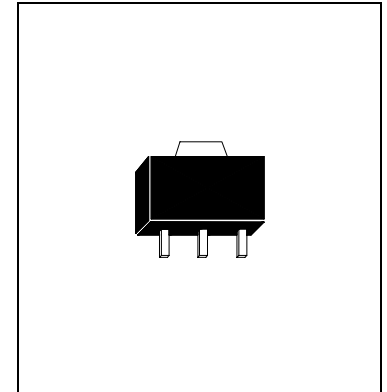


# HM27

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

Darlington transistor.



## Absolute Maximum Ratings

- Maximum Temperatures  
 Storage Temperature ..... -55 ~ +150 °C  
 Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation  
 Total Power Dissipation (Ta=25°C) ..... 1 W
- Maximum Voltages and Currents (Ta=25°C)  
 VCBO Collector to Base Voltage ..... 60 V  
 VCES Collector to Emitter Voltage..... 60 V  
 VEBO Emitter to Base Voltage ..... 10 V  
 IC Collector Current ..... 500 mA

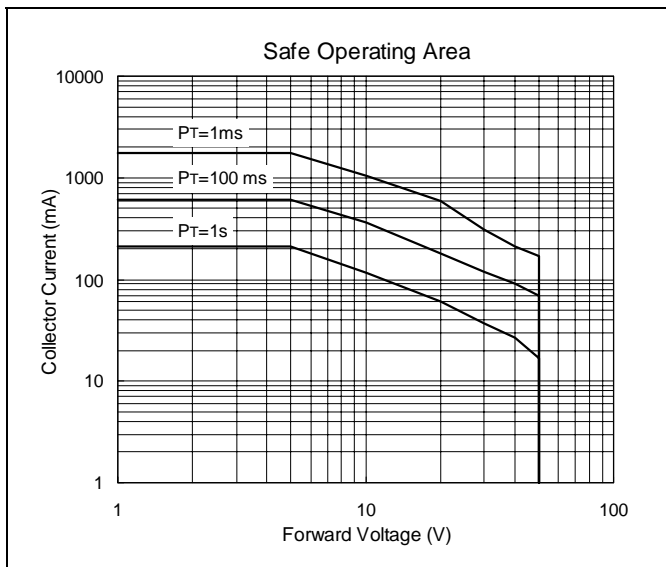
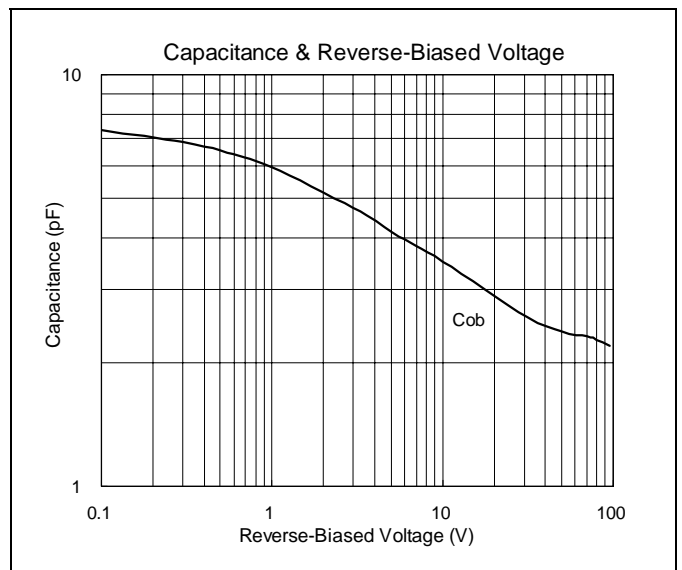
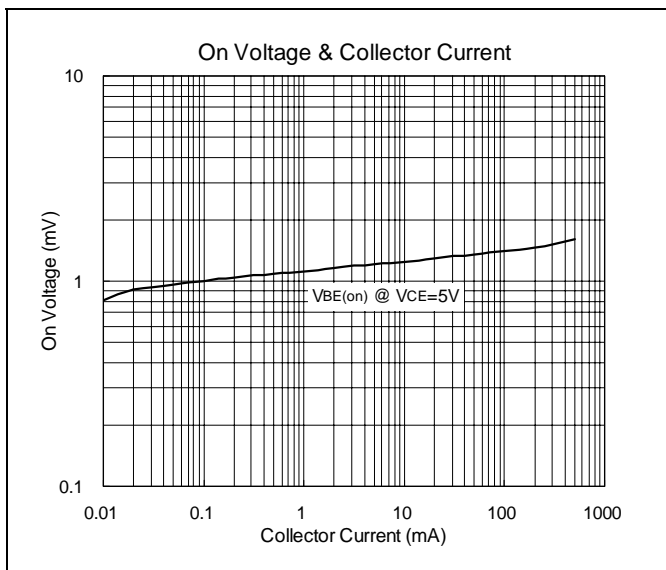
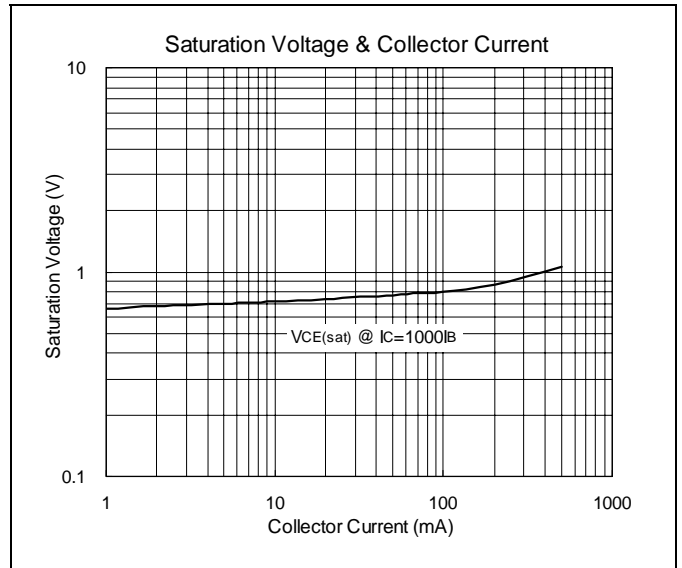
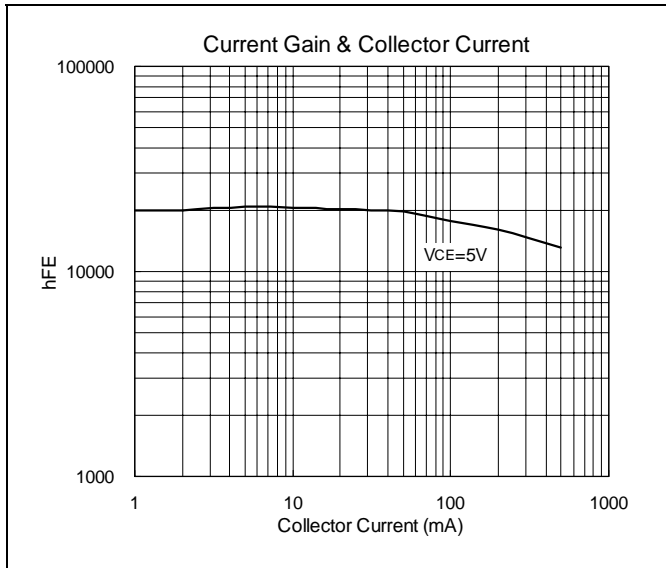
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=100uA
BVCES	60	-	-	V	IC=100uA
BVEBO	10	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=50V
IEBO	-	-	100	nA	VBE=10V
ICES	-	-	500	nA	VCE=50V
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
VBE(on)	-	-	2	V	VCE=5V, IC=100mA
*hFE1	10K	-	-		VCE=5V, IC=10mA
*hFE2	10K	-	-		VCE=5V, IC=100mA

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



### Characteristics Curve





### SOT-89 Dimension

**Marking :**

Style : Pin 1.Base 2.Collector 3.Emitter

3-Lead SOT-89 Plastic Surface Mounted Package  
 HSMC Package Code : M

\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0583	0.0598	1.48	1.52
B	0.1594	0.1673	4.05	4.25	G	0.1165	0.1197	2.96	3.04
C	0.0591	0.0663	1.50	1.70	H	0.0551	0.0630	1.40	1.60
D	0.0945	0.1024	2.40	2.60	I	0.0138	0.0161	0.35	0.41
E	0.0141	0.0201	0.36	0.51					

**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

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