



HM965

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HM965 is designed for use as AF output amplifier and glass unit.

Features

- Low $V_{CE(sat)}$
- High performance at low supply voltage

Absolute Maximum Ratings

- Maximum Temperatures
Storage Temperature -55 ~ +150 °C
Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
Total Power Dissipation ($T_a=25^{\circ}\text{C}$) 1.2 W
- Maximum Voltages and Currents ($T_a=25^{\circ}\text{C}$)
BVCBO Collector to Base Voltage 40 V
BVCEO Collector to Emitter Voltage 20 V
BVEBO Emitter to Base Voltage 7 V
IC Collector Current (Continuous) 5 A
IC Collector Current (Peak $P_T=10\text{mS}$) 8 A

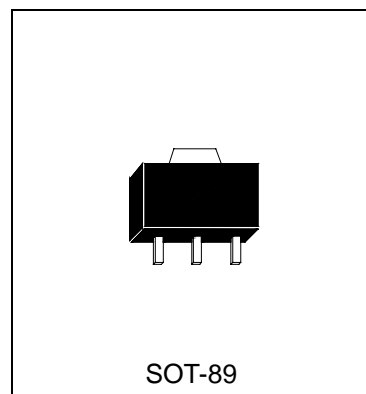
Characteristics ($T_a=25^{\circ}\text{C}$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	$I_C=100\mu\text{A}$
BVCEO	20	-	-	V	$I_C=1\text{mA}$
BVEBO	7	-	-	V	$I_E=10\mu\text{A}$
ICBO	-	-	0.1	μA	$V_{CB}=10\text{V}$
IEBO	-	-	0.1	μA	$V_{EB}=7\text{V}$
* $V_{CE(sat)}$	-	0.35	1	V	$I_C=3\text{A}$, $I_B=0.1\text{A}$
* h_{FE1}	340	-	800		$V_{CE}=2\text{V}$, $I_C=0.5\text{A}$
* h_{FE2}	150	-	-		$V_{CE}=2\text{V}$, $I_C=2\text{A}$
f_T	-	150	-	MHz	$V_{CE}=6\text{V}$, $I_E=50\text{mA}$
Cob	-	-	50	pF	$V_{CB}=20\text{V}$, $f=1\text{MHz}$

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

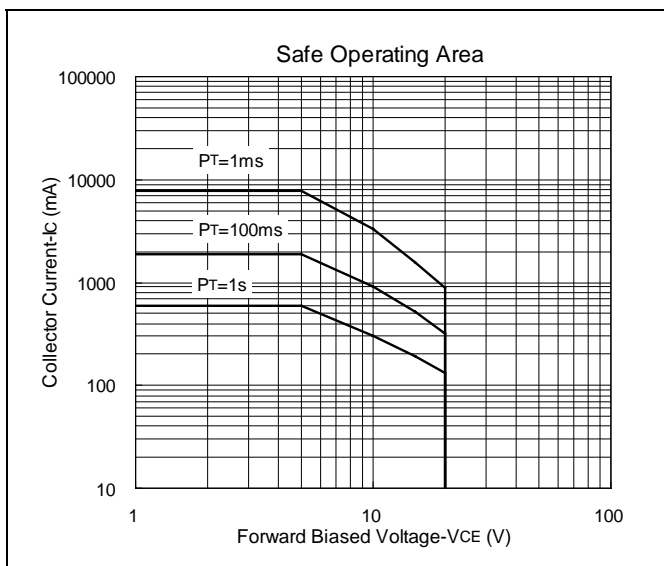
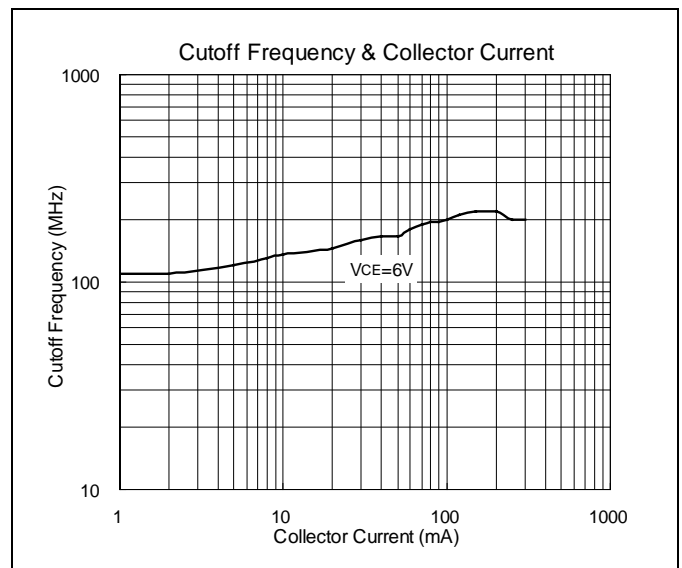
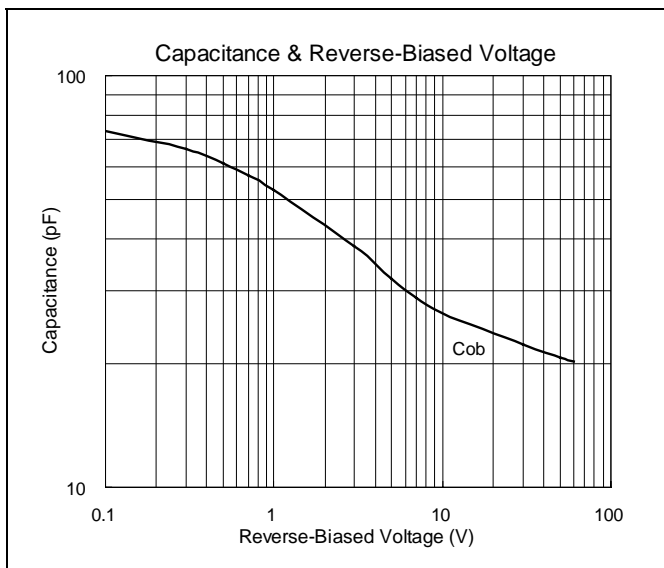
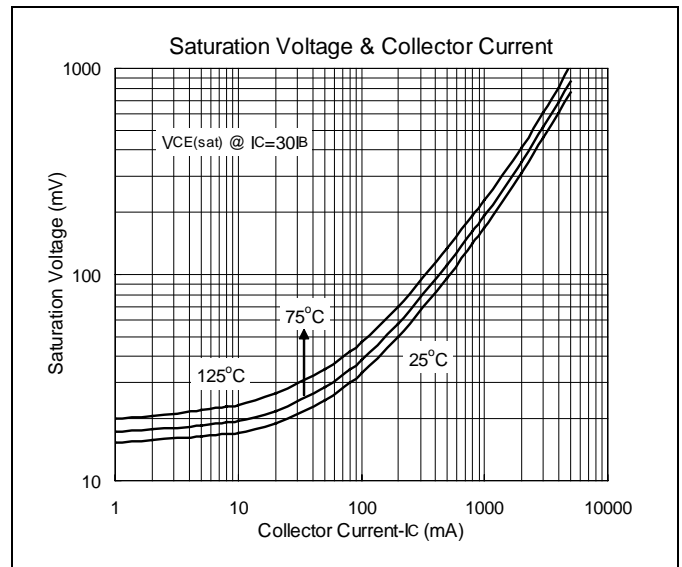
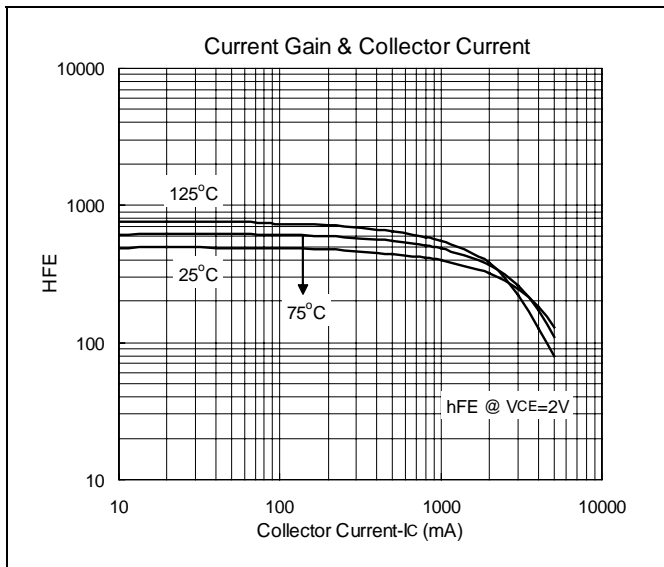
Classifications Of h_{FE1}

Rank	R	S
Range	340-600	560-800



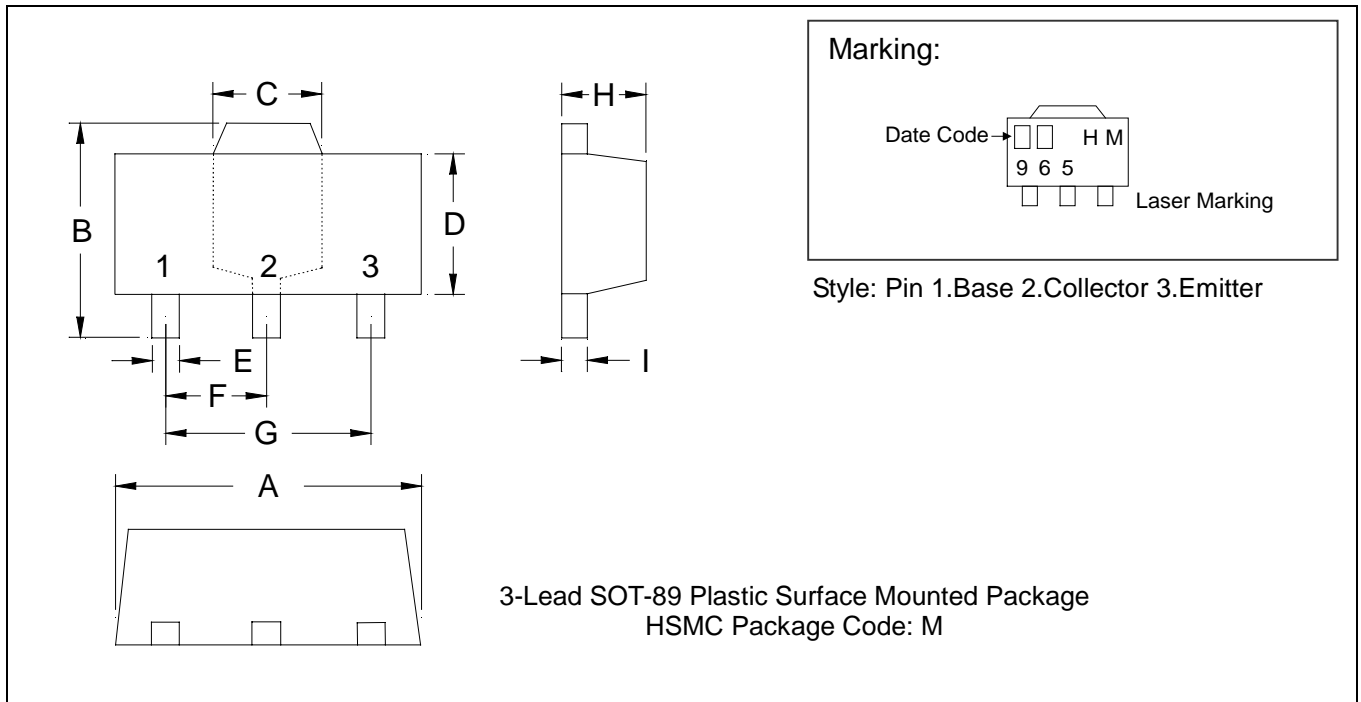


Characteristics Curve





SOT-89 Dimension



*: 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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