

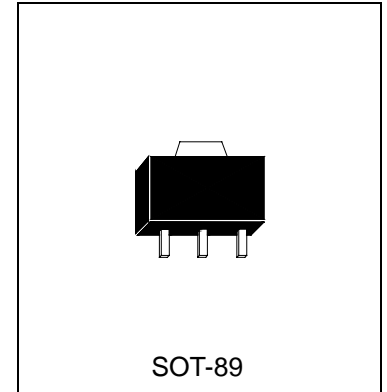


HM882

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HM882 is suited for the output stage of 0.75W audio, voltage regulator, and relay driver.



Absolute Maximum Ratings

- Maximum Temperatures
 - Storage Temperature -55 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (Ta=25°C) 0.6 W (Note1)
 - Total Power Dissipation (Ta=25°C) 2 W (Note2)
 - Total Power Dissipation (Tc=25°C) 1.3 W (Note1)
 - Total Power Dissipation (Tc=25°C) 3.4 W (Note2)
- Maximum Voltages and Currents (Ta=25°C)
 - VCBO Collector to Base Voltage 70 V
 - VCEO Collector to Emitter Voltage 30 V
 - VEBO Emitter to Base Voltage 5 V
 - IC Collector Current 3 A

Thermal Characteristic

Characteristic	Symbol	Max.	Unit
Thermal Resistance, junction to ambient (Note1)	R θ ja	208	°C/W
Thermal Resistance, junction to ambient (Note2)	R θ ja	62.5	°C/W
Thermal Resistance, junction to case (Note1)	R θ jc	86	°C/W
Thermal Resistance, junction to case (Note2)	R θ jc	36.8	°C/W

Note1: When tested in free air condition, without heat sinking.

Note2: When mounted on a 40X40X1mm ceramic board.



Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	IC=100uA, IE=0
BVCEO	30	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=10uA, IC=0
ICBO	-	-	1	uA	VCB=30V, IE=0
IEBO	-	-	1	uA	VEB=3V, IB=0
*VCE(sat)	-	-	0.5	V	IC=2A, IB=0.2A
*VBE(sat)	-	-	2	V	IC=2A, IB=0.2A
*hFE1	30	-	-		VCE=2V, IC=20mA
*hFE2	100	-	500		VCE=2V, IC=1A
fT	-	90	-	MHz	VCE=5V, IC=0.1A, f=100MHz
Cob	-	45	-	pF	IE=0, VCB=10V, f=1MHz

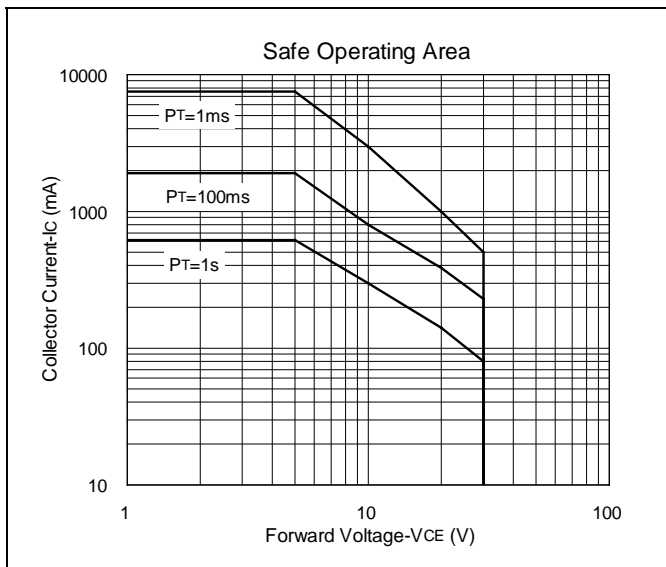
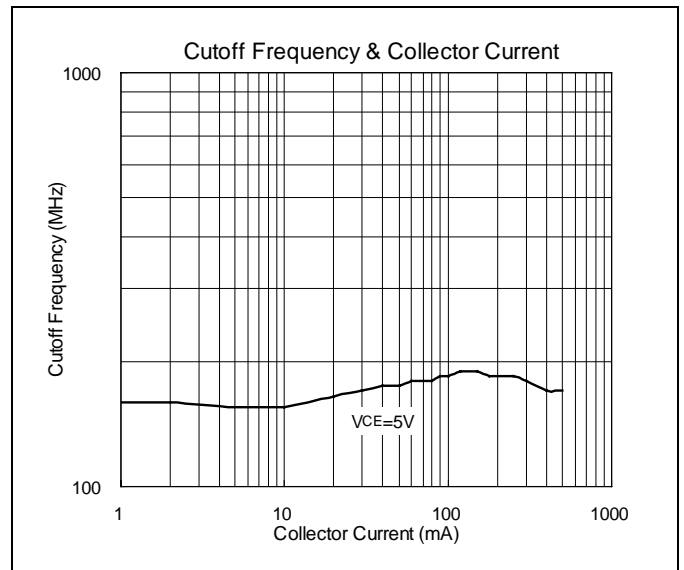
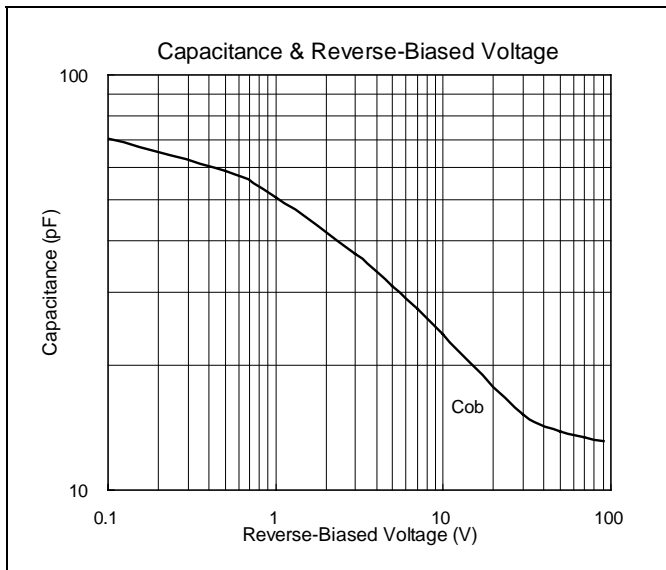
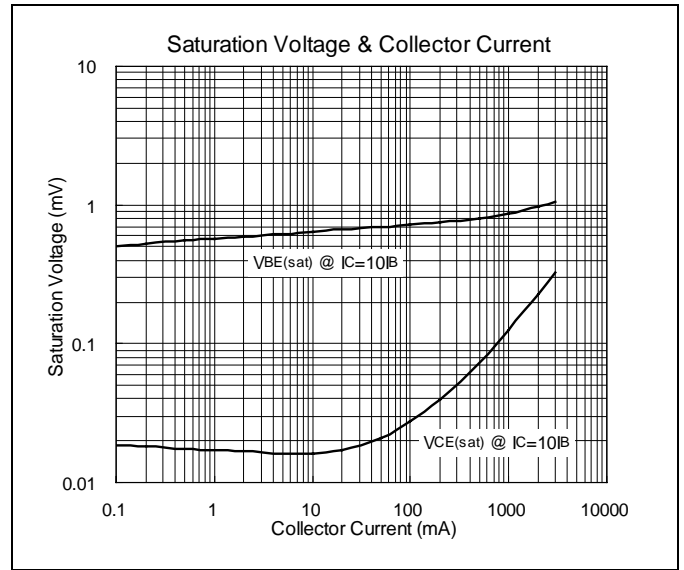
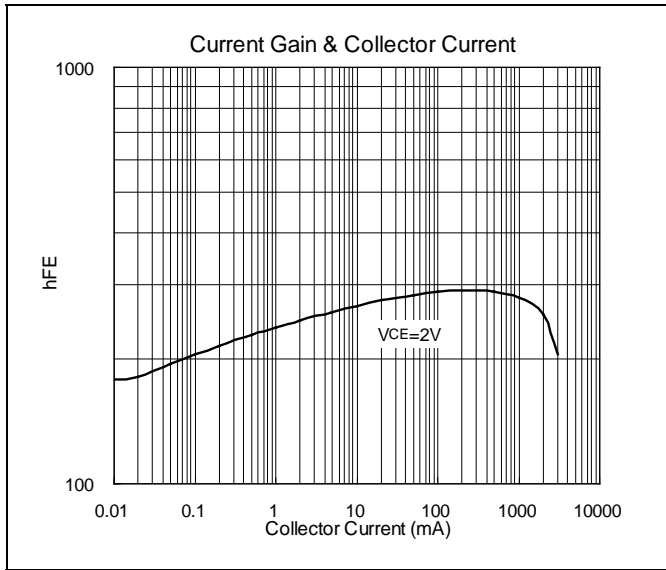
*Pulse Test: Pulse Width \leq 380us, Duty Cycle \leq 2%

Classification Of hFE2

Rank	Q	P	E
Range	100-200	160-320	250-500

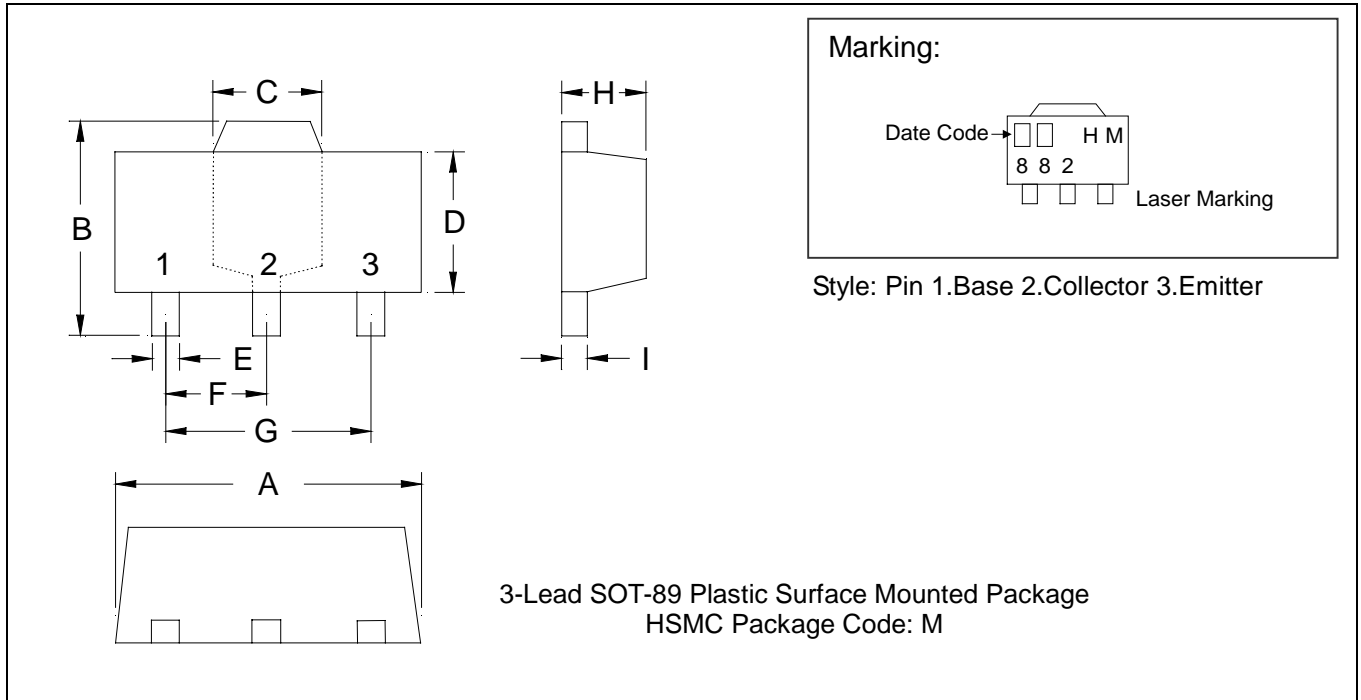


Characteristics Curve





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

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931