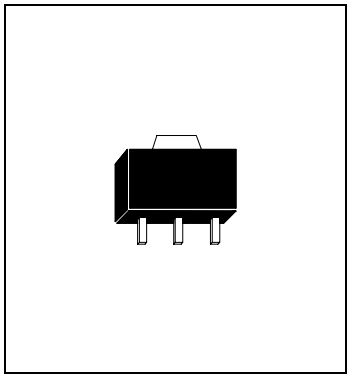
HM14

NPN EPITAXIAL PLANAR TRANSISTOR



Description

The HM14 is a darlington amplifier transistor designed for applications requiring extremely high current gain.

Features

- High D.C current gain
- HM14 is complementary to HM64

Absolute Maximum Ratings

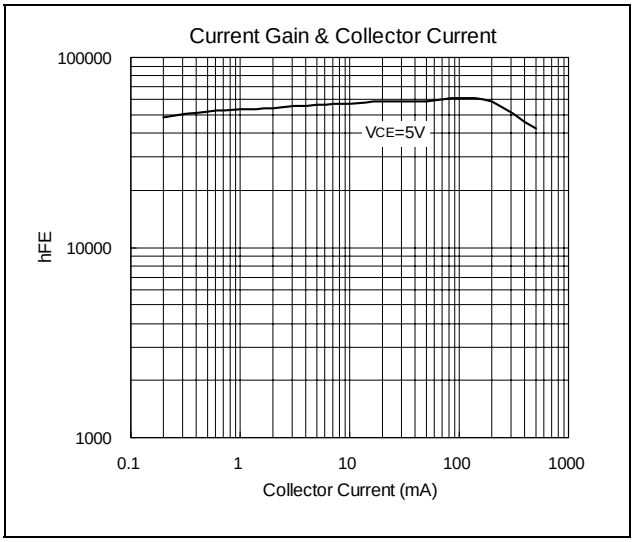
- Maximum Temperatures
  Storage Temperature ..... -55 ~ +150 °C
  Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) ..... 1 W
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage ..... 30 V
  VCES Collector to Emitter Voltage..... 30 V
  VEBO Emitter to Base Voltage ..... 10 V
  IC Collector Current..... 300 mA

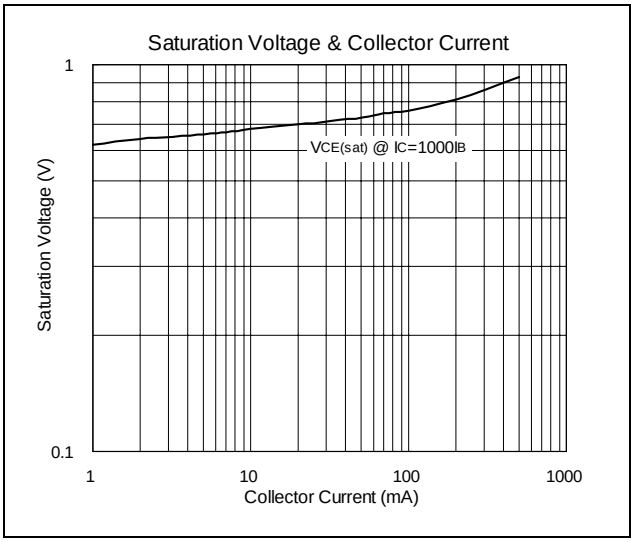
Characteristics (Ta=25°C)

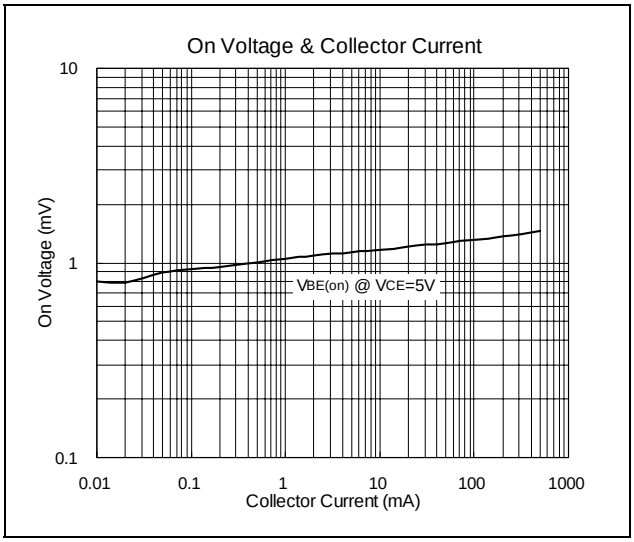
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA, IE=0
BVCES	30	-	-	V	IC=100uA, IB=0
BVEBO	10	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=30V, IE=0
IEBO	-	-	100	nA	VEB=10V, IC=0
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
*VBE(on)	-	-	2	V	VCE=5V, IC=100mA
*hFE1	10K	-	-		VCE=5V, IC=10mA
*hFE2	20K	-	-		VCE=5V, IC=100mA
fT	125	-	-	MHz	VCE=5V, IC=10mA, f=100MHz

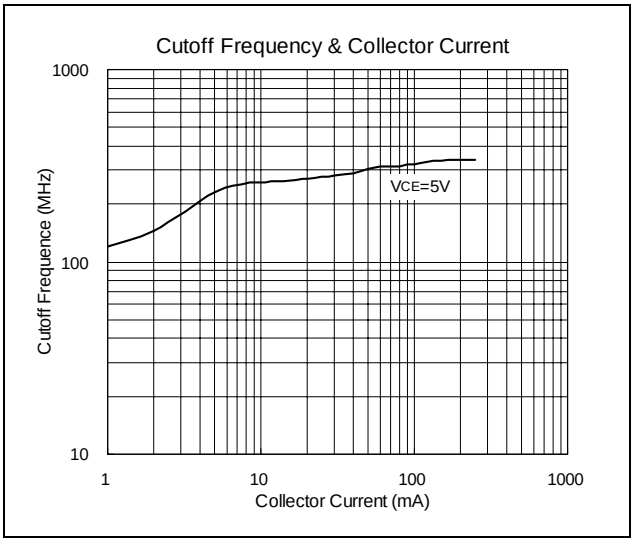
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

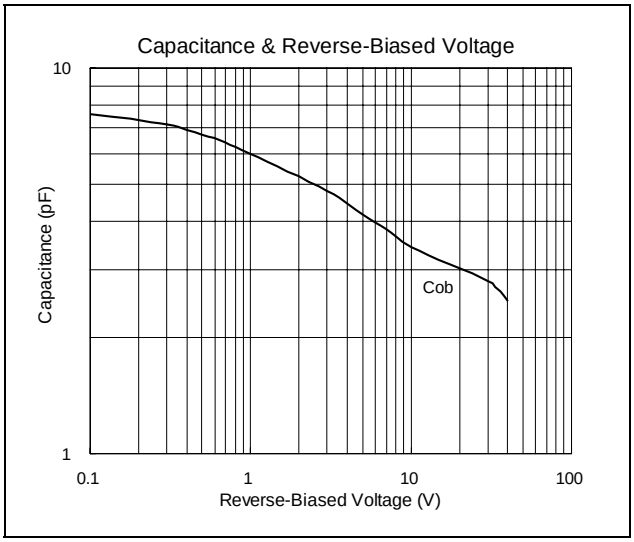
Characteristics Curve

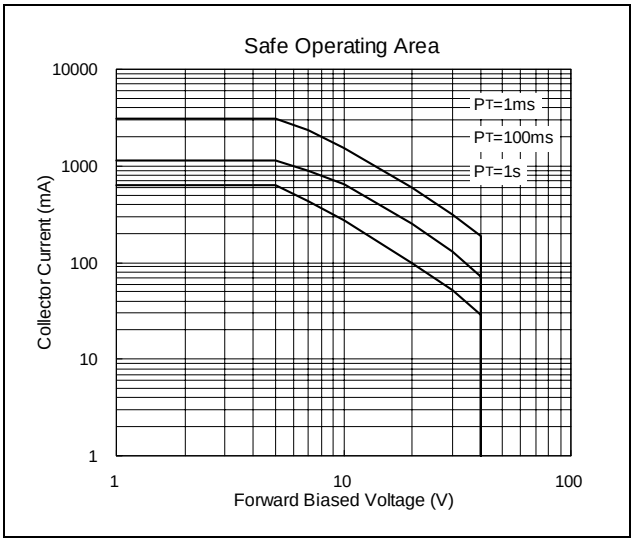




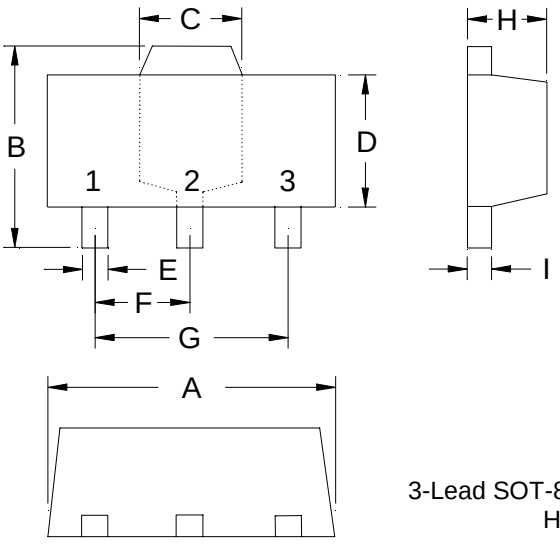




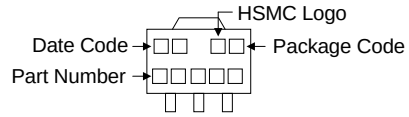




SOT-89 Dimension



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

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
- **Factory 2 :** No. 17-1, Ta-Tung Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
  Tel : 886-3-5977061 Fax : 886-3-5979220