



HM44

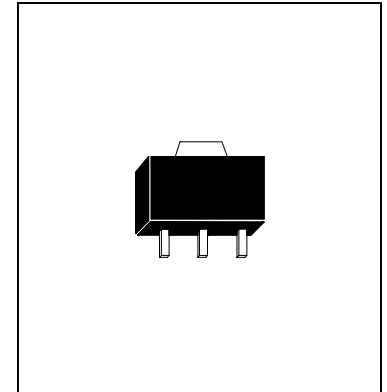
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HM44 is designed for application requires high voltage.

Features

- High voltage: $V_{CEO}=400V(\text{min})$ at $I_C=1mA$
- High current gain: $I_C=300mA$ at $25^\circ C$
- Complementary with HM94



Absolute Maximum Ratings

- Maximum Temperatures
Storage Temperature $-55 \sim +150^\circ C$
Junction Temperature $+150^\circ C$ Maximum
- Maximum Power Dissipation
Total Power Dissipation ($T_a=25^\circ C$) 1 W
- Maximum Voltages and Currents ($T_a=25^\circ C$)
VCBO Collector to Base Voltage 400 V
VCEO Collector to Emitter Voltage 400 V
VEBO Emitter to Base Voltage 6 V
IC Collector Current 300 mA

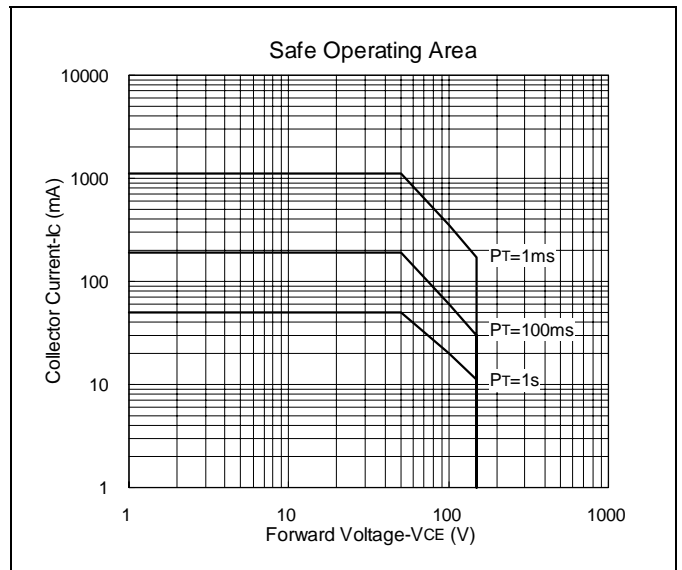
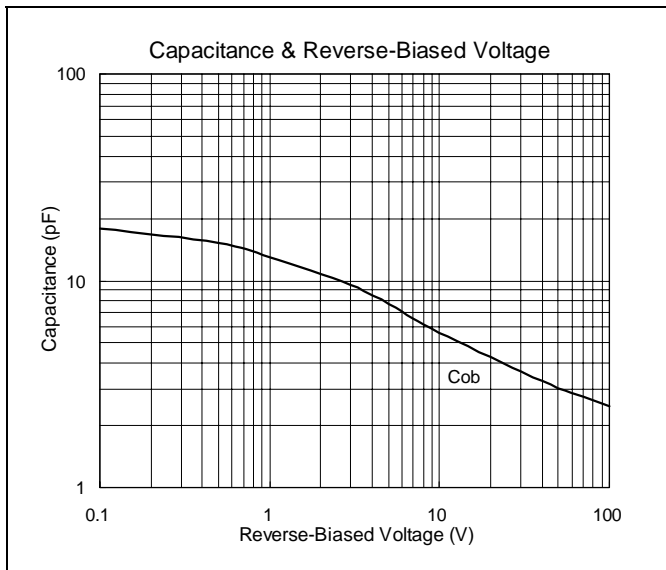
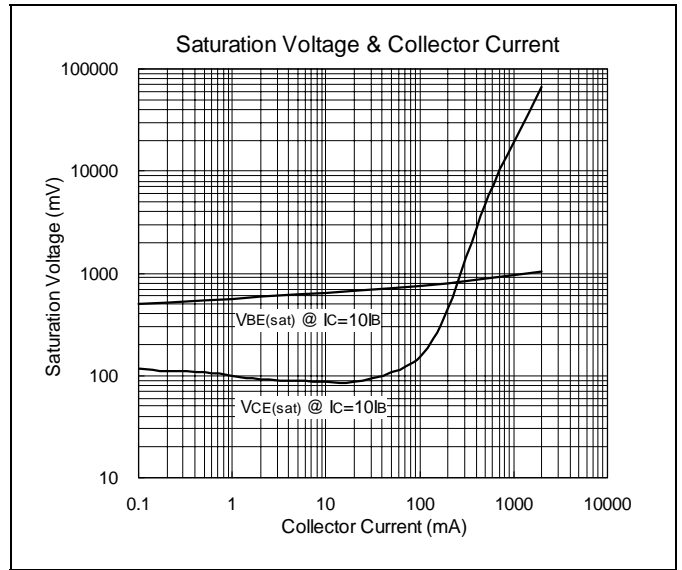
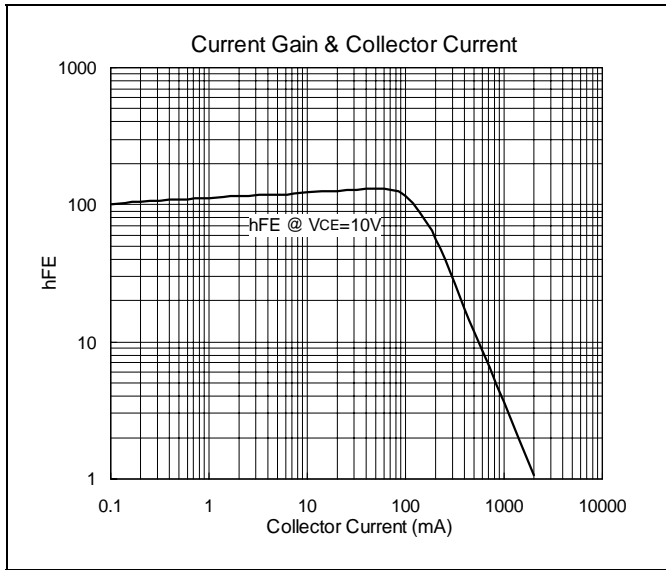
Characteristics ($T_a=25^\circ C$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	400	-	-	V	$I_C=100\mu A$
BVCEO	400	-	-	V	$I_C=1mA$
BVEBO	6	-	-	V	$I_E=10\mu A$
ICBO	-	-	100	nA	$V_{CB}=400V$
IEBO	-	-	100	nA	$V_{EB}=4V$
ICES	-	-	500	nA	$V_{CE}=400V$
* $V_{CE}(\text{sat})1$	-	-	375	mV	$I_C=20mA, I_B=2mA$
* $V_{CE}(\text{sat})2$	-	-	750	mV	$I_C=50mA, I_B=5mA$
* $V_{BE}(\text{sat})$	-	-	750	mV	$I_C=10mA, I_B=1mA$
* h_{FE1}	40	-	-		$V_{CE}=10V, I_C=1mA$
* h_{FE2}	50	-	300		$V_{CE}=10V, I_C=10mA$
* h_{FE3}	45	-	-		$V_{CE}=10V, I_C=50mA$
* h_{FE4}	40	-	-		$V_{CE}=10V, I_C=100mA$
Cob	-	4	6	pF	$V_{CB}=20V, f=1MHz$

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

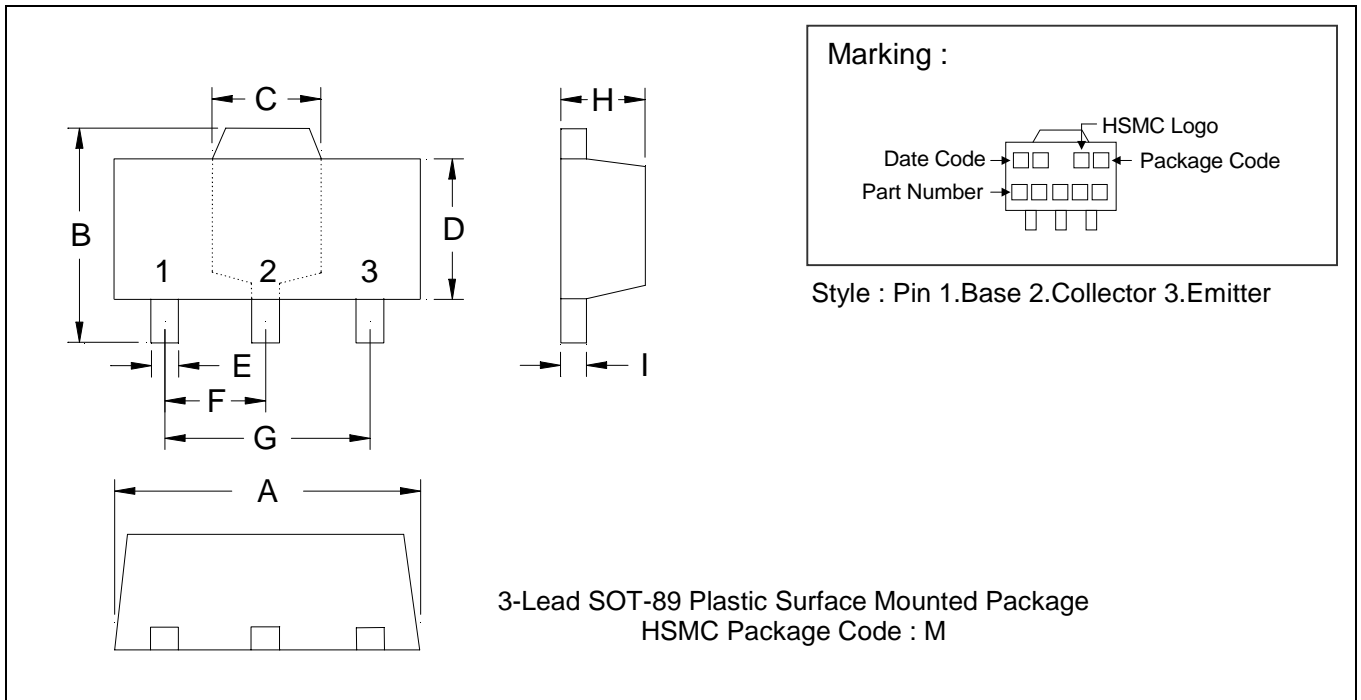


Characteristics Curve





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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