



HMP5A44V

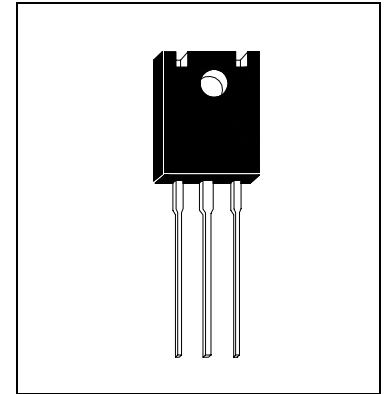
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HMP5A44V is designed for application that require high voltage.

Features

- High Voltage: $V_{CEO}=400(\text{min})$ at $I_C=1\text{mA}$
- High Current: $I_C=300\text{mA}$ at 25°C
- Complementary to HMP5A94V



Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 1.3 W
- Maximum Voltages and Currents
 BVCBO Collector to Base Voltage 400 V
 BVCEO Collector to Emitter Voltage 400 V
 BVEBO Emitter to Base Voltage 6 V
 IC Collector Current 300 mA

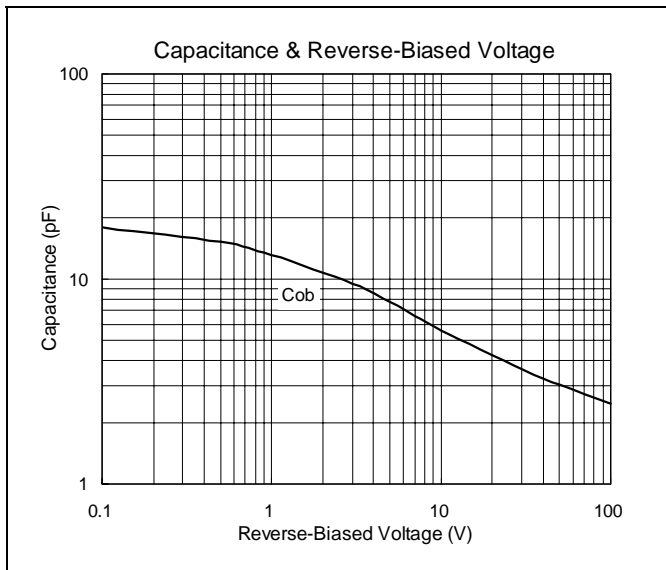
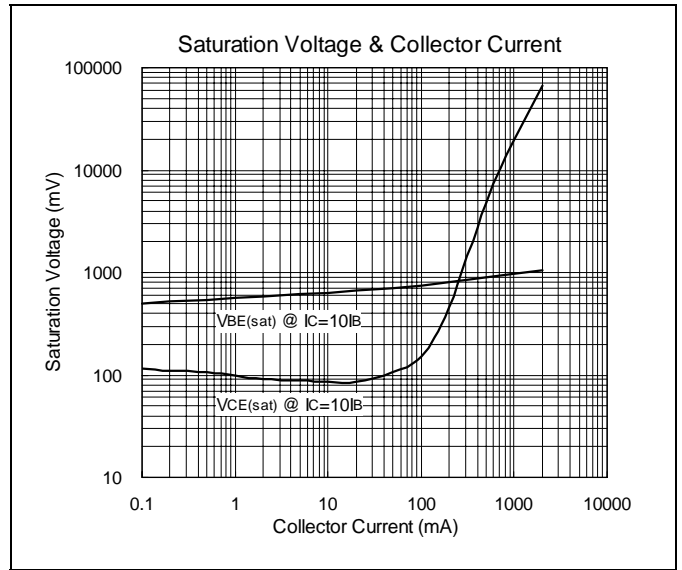
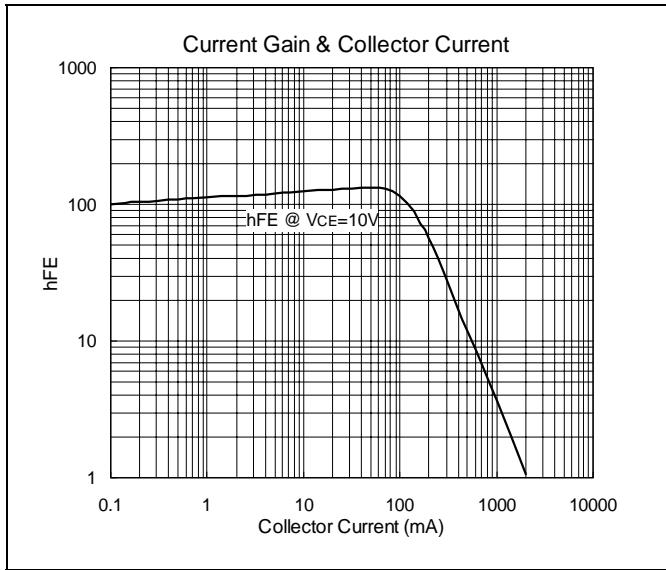
Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	400	-	-	V	$I_C=100\mu\text{A}$
BVCEO	400	-	-	V	$I_C=1\text{mA}$
BVEBO	6	-	-	V	$I_E=10\mu\text{A}$
ICBO	-	-	100	nA	$V_{CB}=400\text{V}$
IEBO	-	-	100	nA	$V_{EB}=4\text{V}$
ICES	-	-	500	nA	$V_{CE}=400\text{V}$
*VCE(sat)1	-	-	320	mV	$I_C=1\text{mA}, I_B=0.1\text{mA}$
*VCE(sat)2	-	-	350	mV	$I_C=20\text{mA}, I_B=2\text{mA}$
*VCE(sat)3	-	-	750	mV	$I_C=50\text{mA}, I_B=5\text{mA}$
*VBE(sat)	-	-	750	mV	$I_C=10\text{mA}, I_B=1\text{mA}$
*hFE1	40	-	-		$I_C=1\text{mA}, V_{CE}=10\text{V}$
*hFE2	50	-	300		$I_C=10\text{mA}, V_{CE}=10\text{V}$
*hFE3	45	-	-		$I_C=50\text{mA}, V_{CE}=10\text{V}$
*hFE4	40	-	-		$I_C=100\text{mA}, V_{CE}=10\text{V}$
fT	50	-	-	MHz	$I_C=10\text{mA}, V_{CE}=20\text{V}, f=100\text{MHz}$
Cob	-	4	-	pF	$V_{CB}=20\text{V}, f=1\text{MHz}$

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

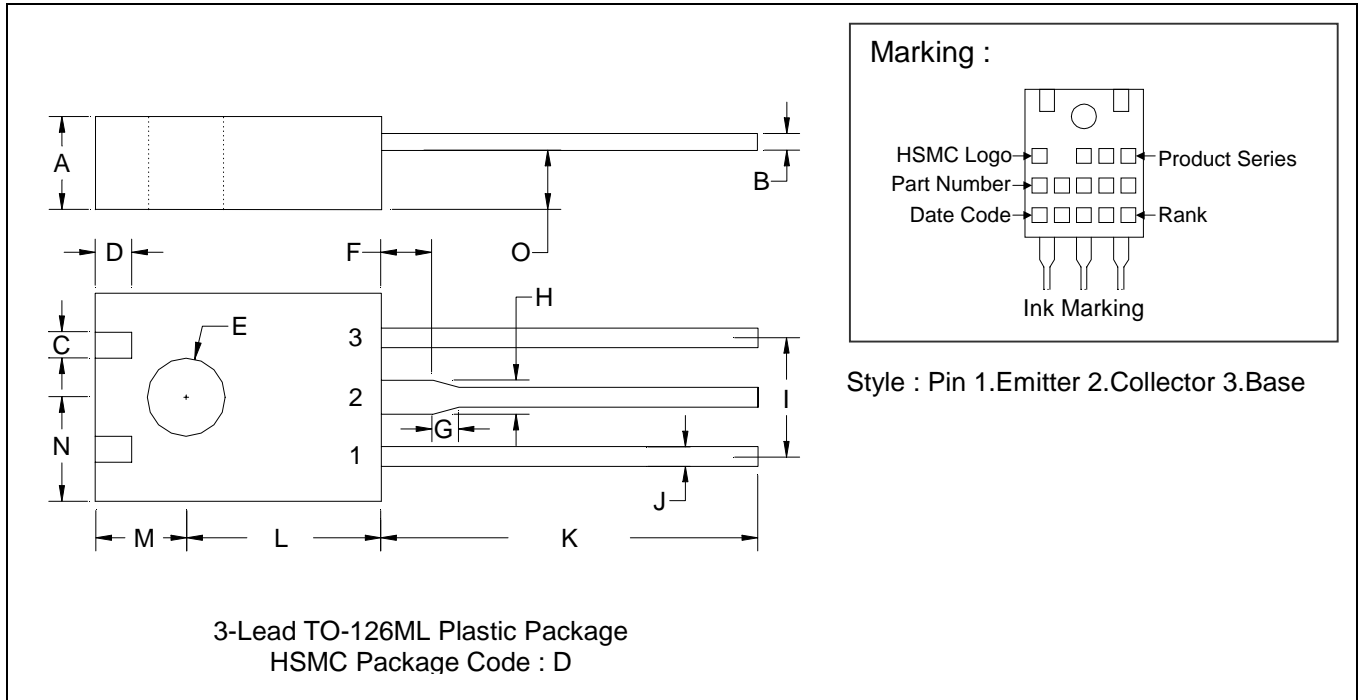


Characteristics Curve





TO-126ML Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1356	0.1457	3.44	3.70	I	-	*0.1795	-	*4.56
B	0.0170	0.0272	0.43	0.69	J	0.0268	0.0331	0.68	0.84
C	0.0344	0.0444	0.87	1.12	K	0.5512	0.5906	14.00	15.00
D	0.0501	0.0601	1.27	1.52	L	0.2903	0.3003	7.37	7.62
E	0.1131	0.1231	2.87	3.12	M	0.1378	0.1478	3.50	3.75
F	0.0737	0.0837	1.87	2.12	N	0.1525	0.1625	3.87	4.12
G	0.0294	0.0494	0.74	1.25	O	0.0740	0.0842	1.88	2.14
H	0.0462	0.0562	1.17	1.42					

Notes : 1.Dimension and tolerance based on our Spec. dated Mar. 6,1995.
 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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