



HMPSA14

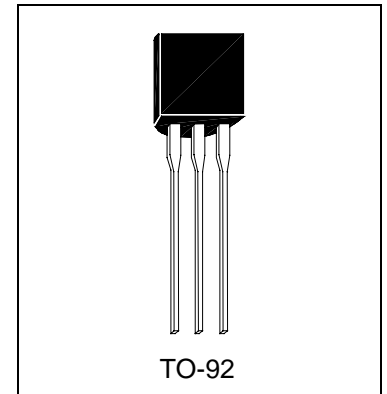
NPN SILICON TRANSISTOR

Description

The HMPSA14 is designed for applications requiring extremely high current gain collector current to 500mA.

Features

- High D.C current Gain
- HMPSA14 Complementary to HMPSA64



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 625 mW
- 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 500 mA

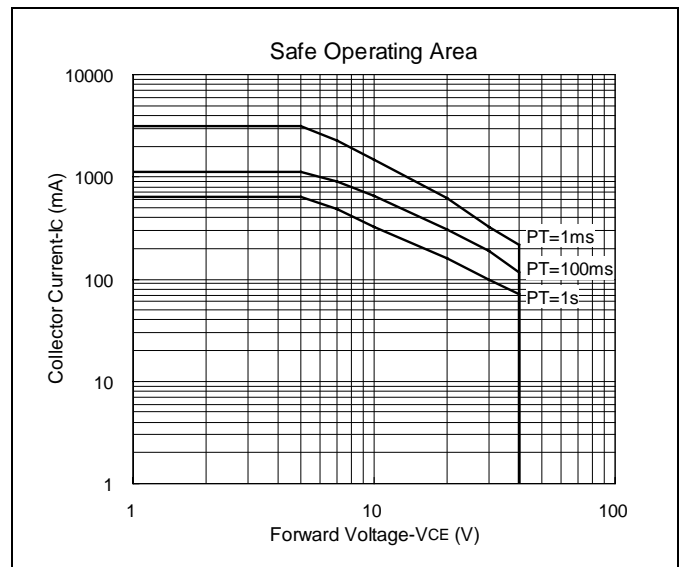
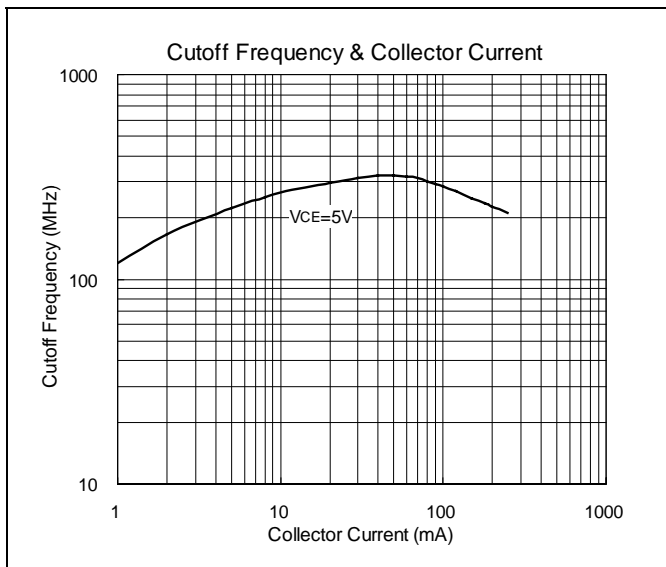
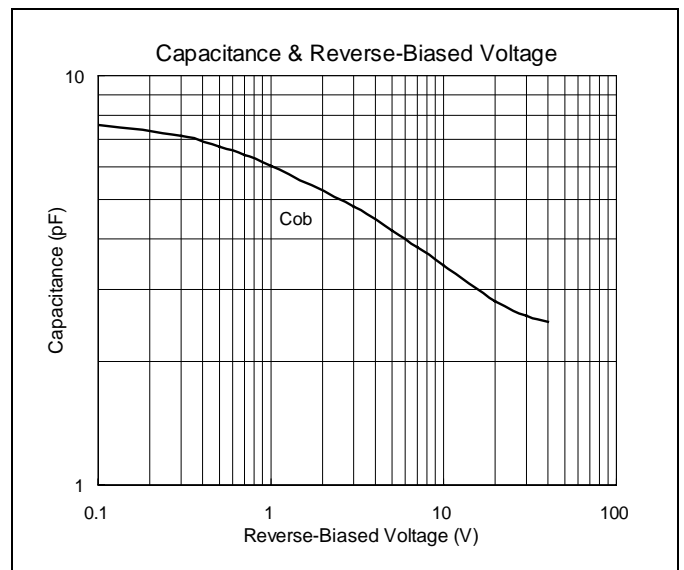
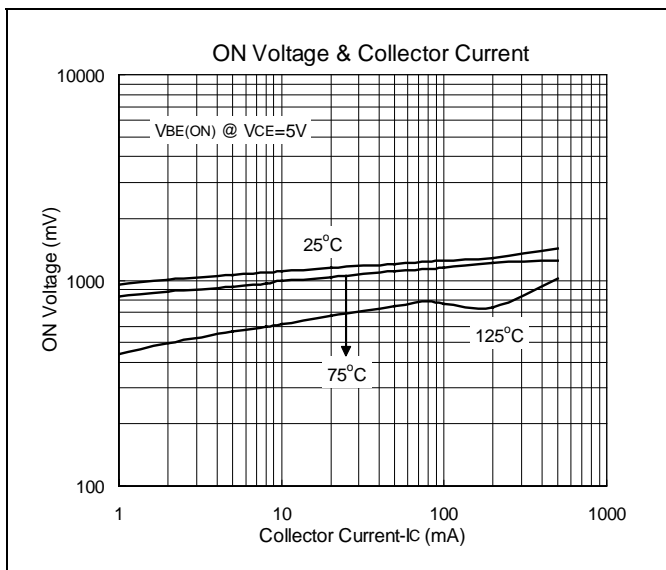
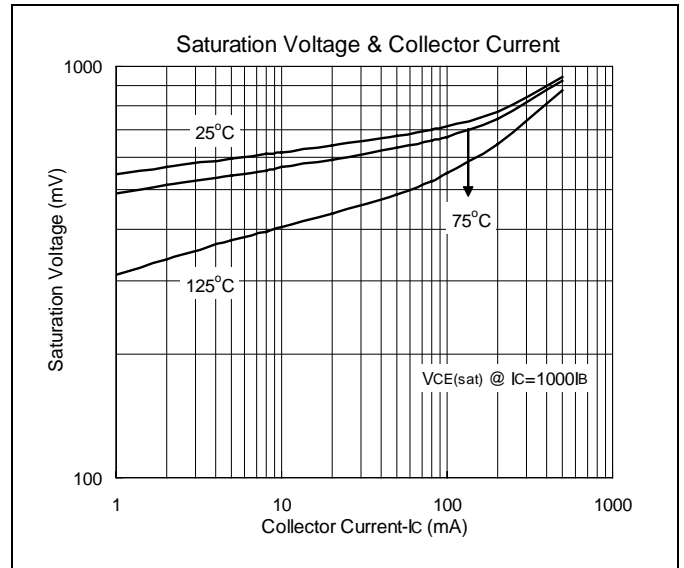
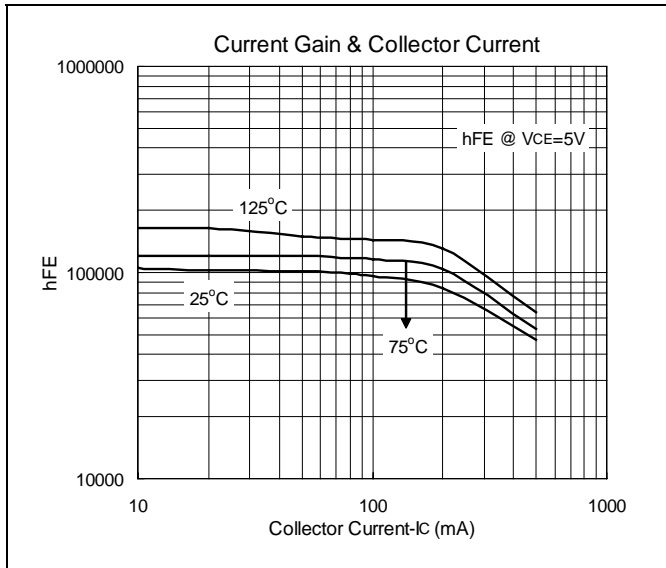
Characteristics (Ta=25°C)

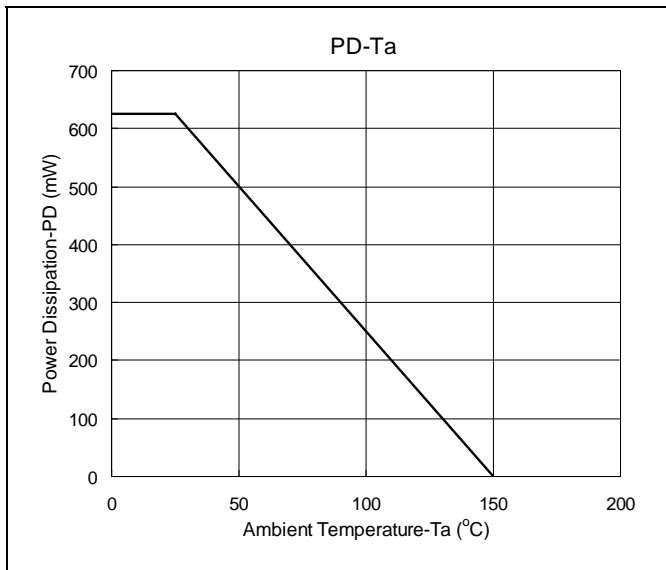
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA, IE=0
BVCES	30	-	-	V	IC=0.1mA, VBE=0
BVEBO	10	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=30V, IE=0
IEBO	-	-	100	nA	VEB=10V, IC=0
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
VBE(on)	-	-	2	V	VCE=5V, IC=100mA
*hFE1	10K	-	-		IC=10mA, VCE=5V
*hFE2	20K	-	-		IC=100mA, VCE=5V
fT	125	-	-	MHz	IC=10mA, VCE=5V, f=100MHz
Cob	-	-	6	pF	VCB=10V, f=1MHz

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



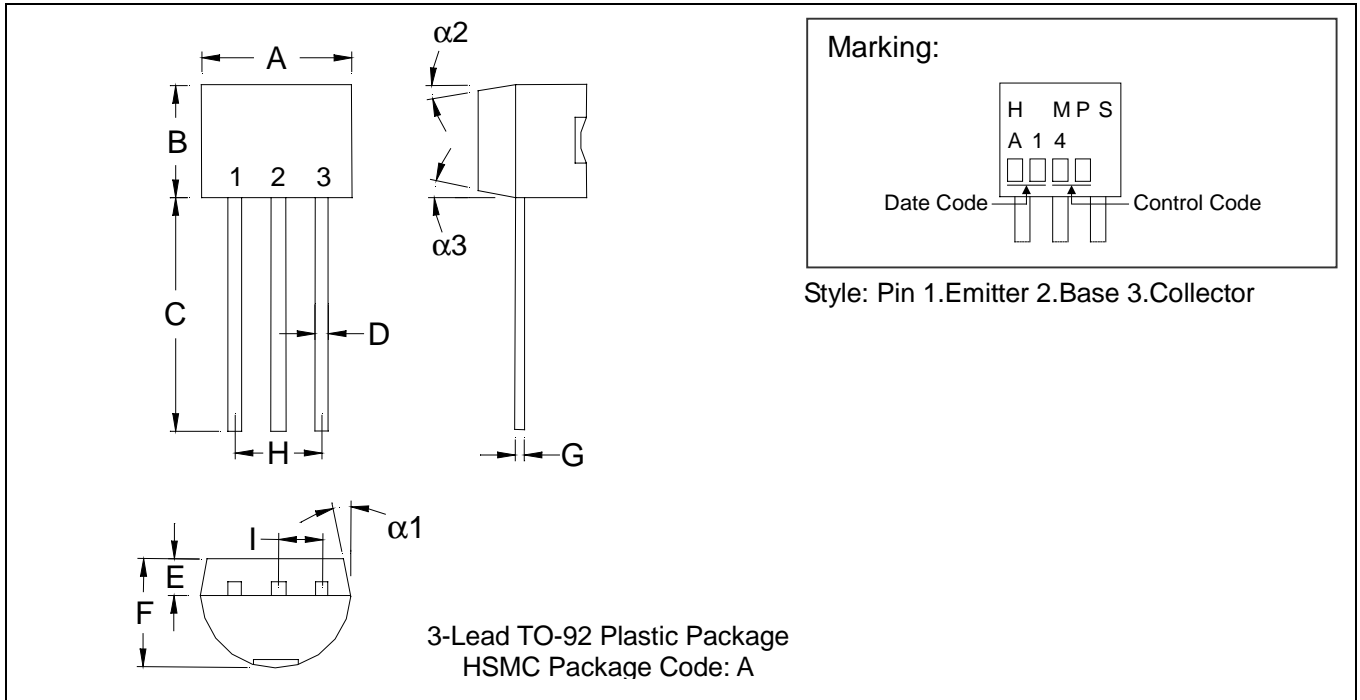
Characteristics Curve







TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

Notes: 1.Dimension and tolerance based on our Spec. dated Apr. 25,1996.
 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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