



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

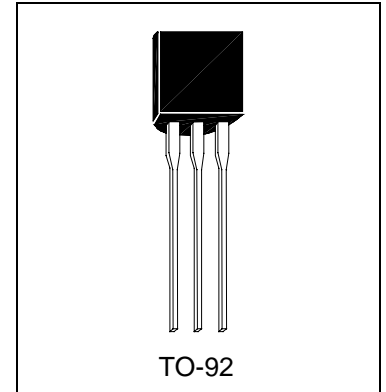
Absolute Maximum Ratings

- 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)

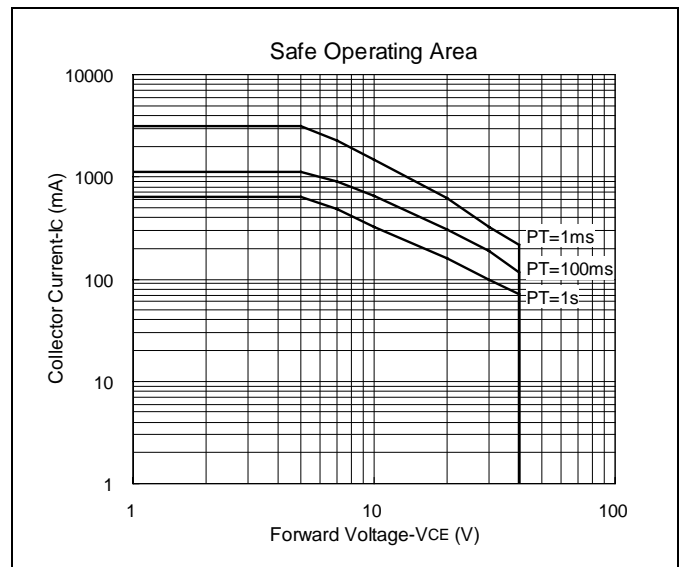
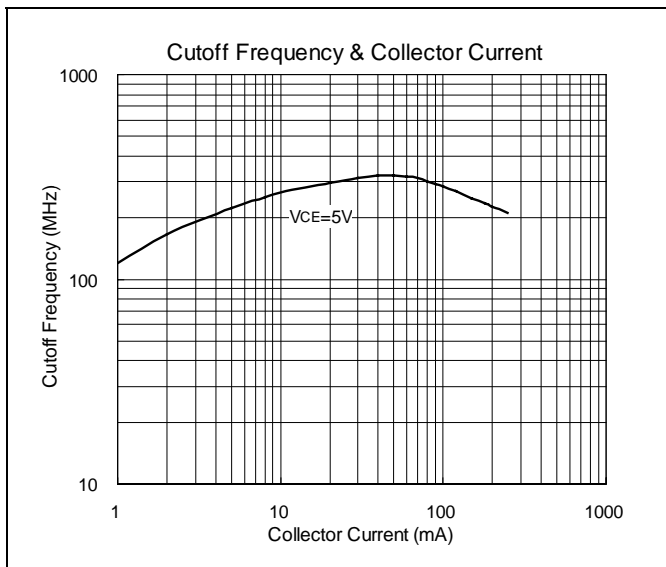
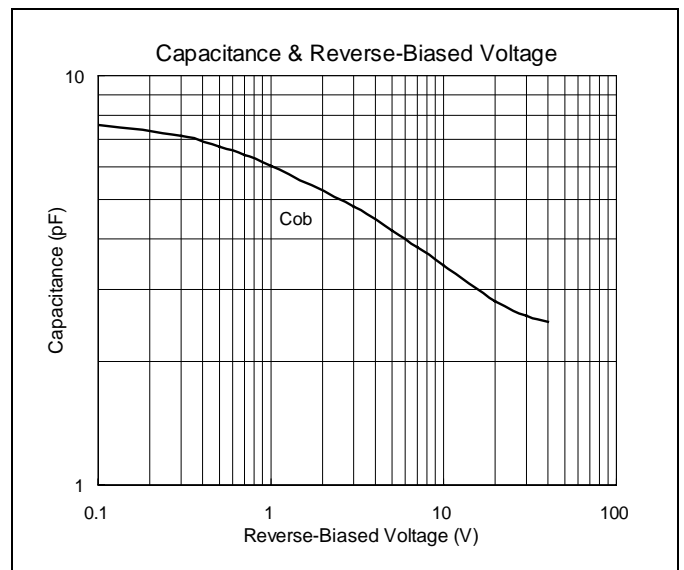
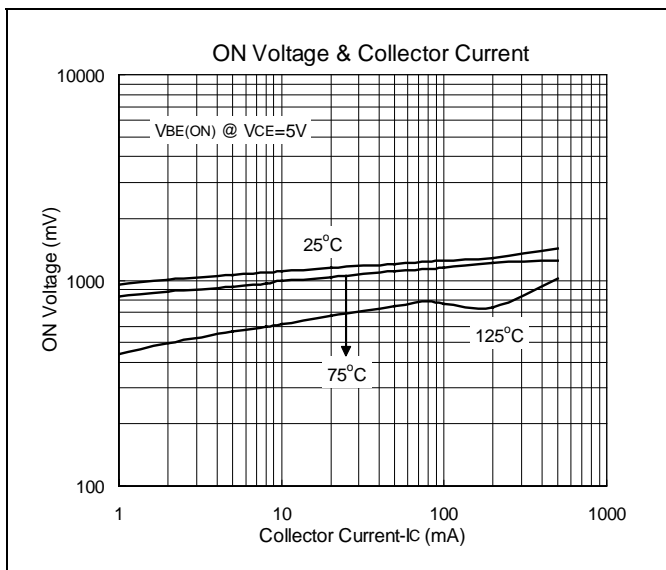
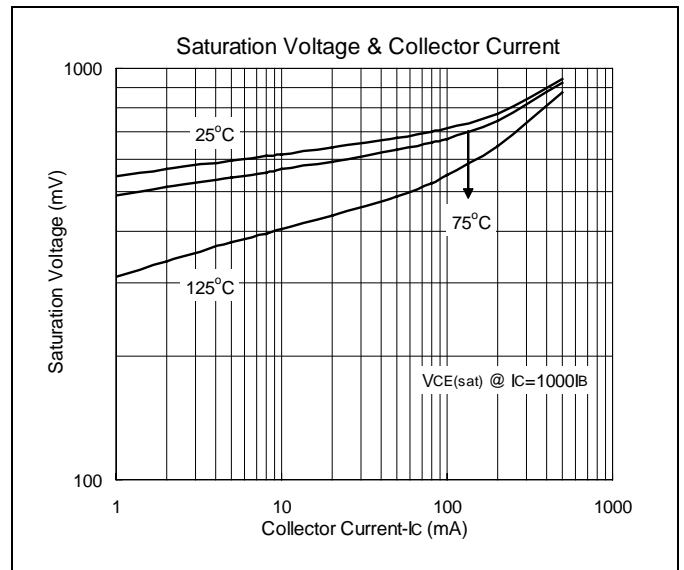
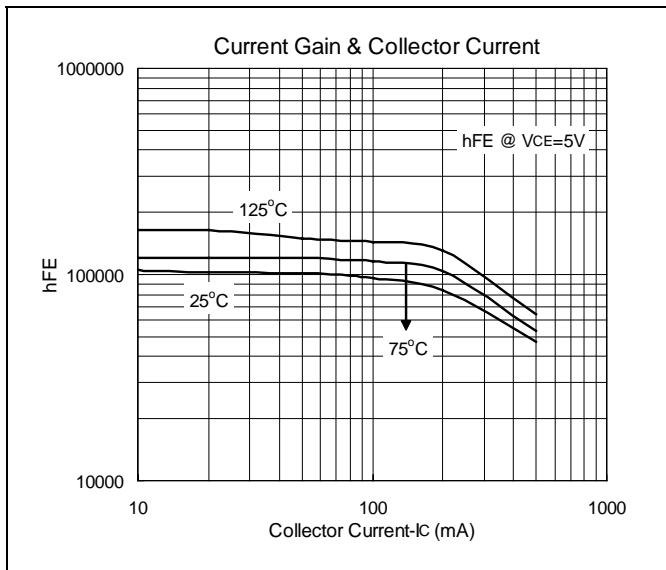
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA, IE=0
BVCES	30	-	-	V	IC=0.1mA, VBE=0
BVEBO	10	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=30V, IE=0
IEBO	-	-	100	nA	VEB=10V, IC=0
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
VBE(on)	-	-	2	V	VCE=5V, IC=100mA
*hFE1	10K	-	-		IC=10mA, VCE=5V
*hFE2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

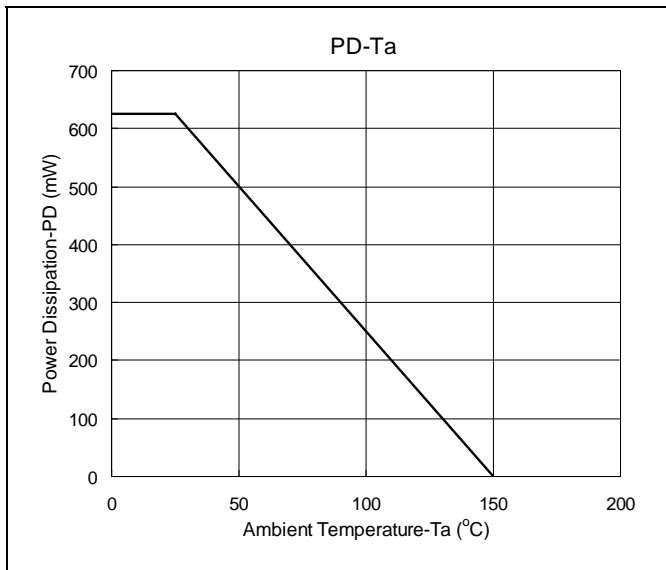
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%





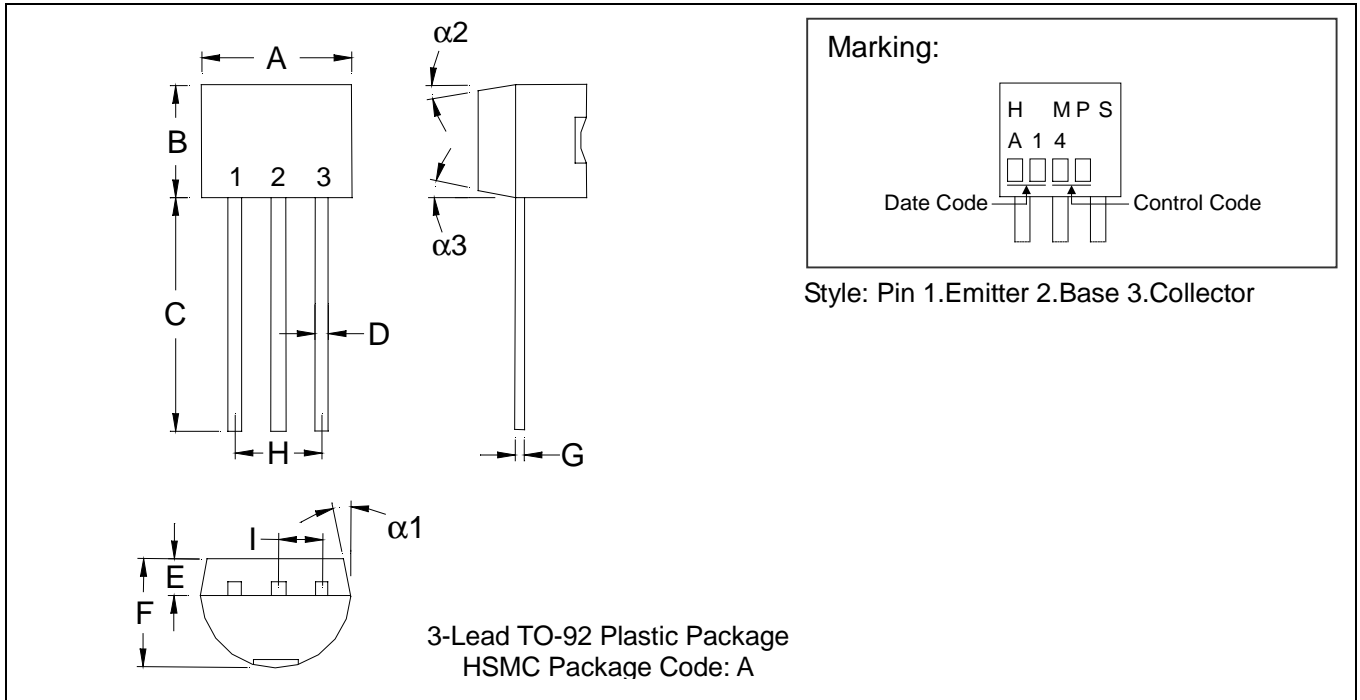
Characteristics Curve







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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