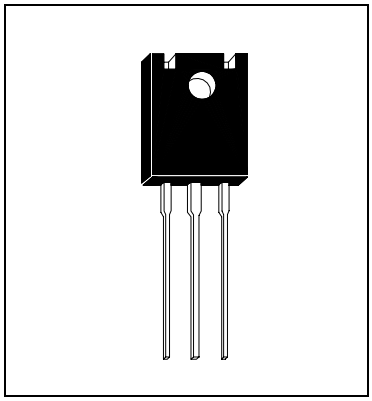
HD122

NPN EPITAXIAL SILICON DARLINGTON TRANSISTOR



Description

The HD122 is designed for medium power linear and switching applications.

Absolute Maximum Ratings (Ta=25°C)

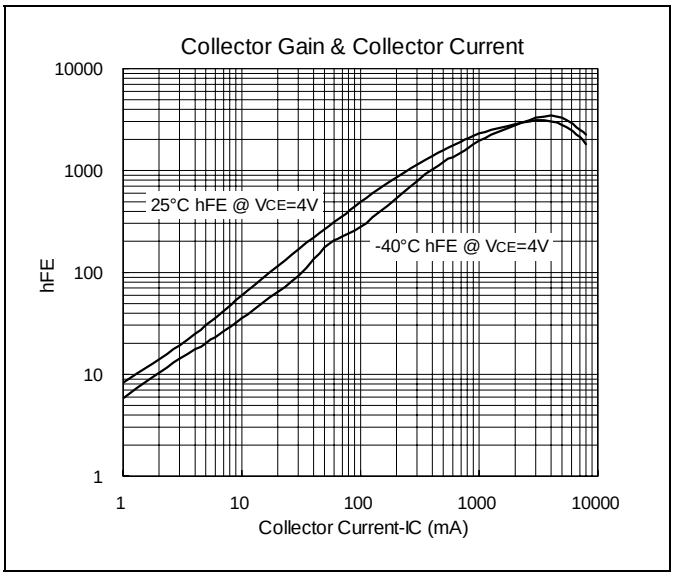
- Maximum Temperatures
  Storage Temperature ..... -50 ~ +150 °C
  Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Tc=25°C) ..... 40 W
- Maximum Voltages and Currents
  BVCBO Collector to Base Voltage ..... 100 V
  BVCEO Collector to Emitter Voltage ..... 100 V
  BVEBO Emitter to Base Voltage ..... 5 V
  IC Collector Current ..... 4 A
  IC Collector Current (Pulse) ..... 0.1 A

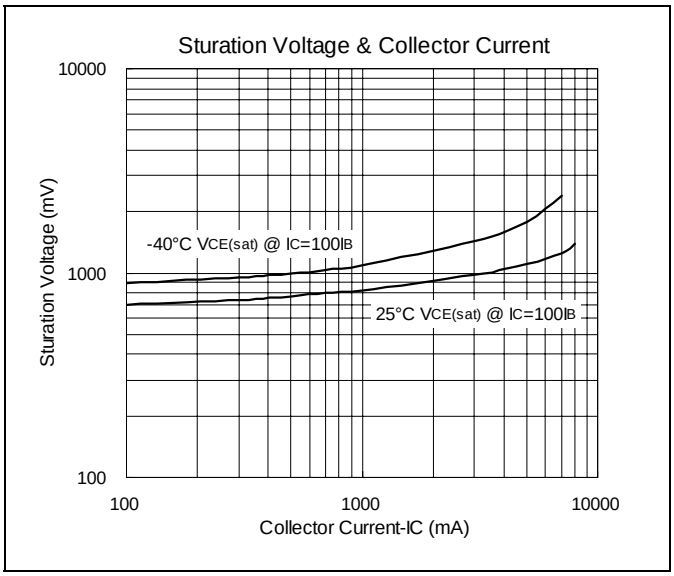
Electrical Characteristics (Ta=25°C)

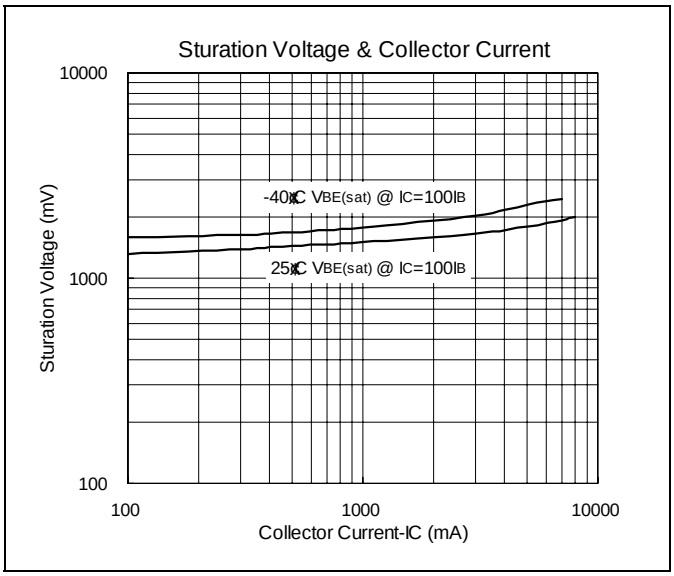
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	100	-	-	V	IC=1mA
*BVCEO	100	-	-	V	IC=100mA
BVEBO	5	-	-	V	IE=100uA
ICEO	-	-	2	mA	VCE=50V
ICBO	-	-	1	mA	VCB=100V
IEBO	-	-	2	mA	VBE=5V
*VCE(sat)1	-	-	2.5	V	IC=1.5A, IB=30mA
*VCE(sat)2	-	-	2.8	V	IC=2A, IB=40mA
*VBE(on)	-	-	2.5	V	IC=3A, VCE=3V
*hFE1	1000	-	-		IC=0.5A, VCE=3V
*hFE2	1000	-	-		IC=3A, VCE=3V

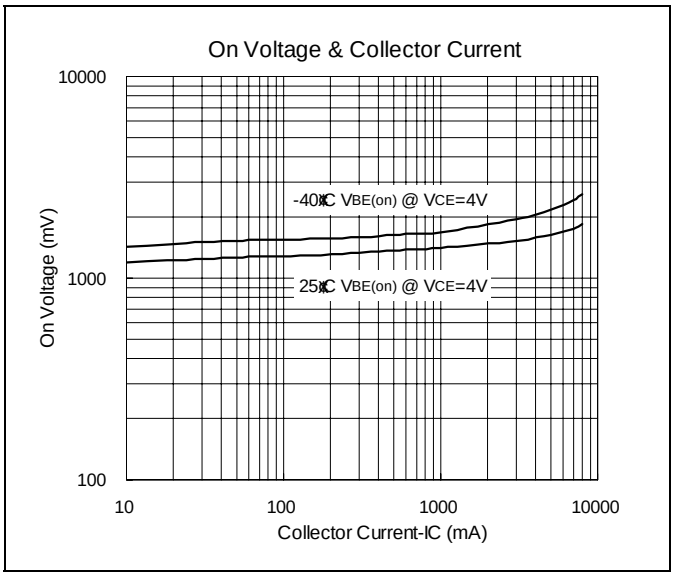
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

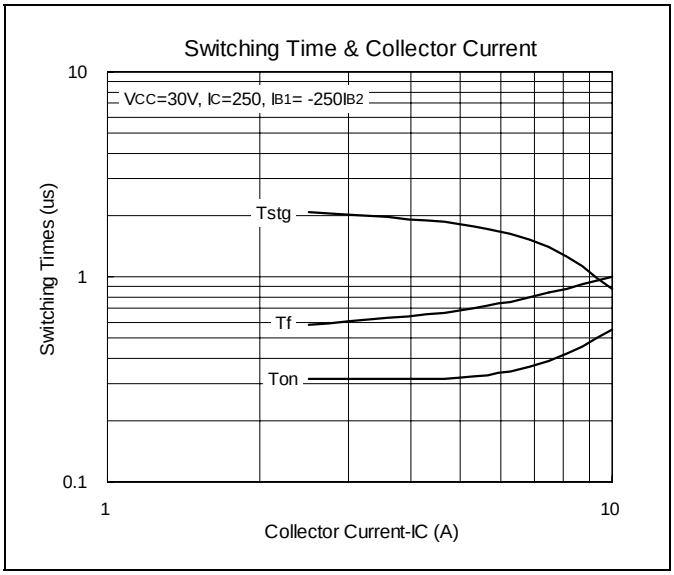
Characteristics Curve

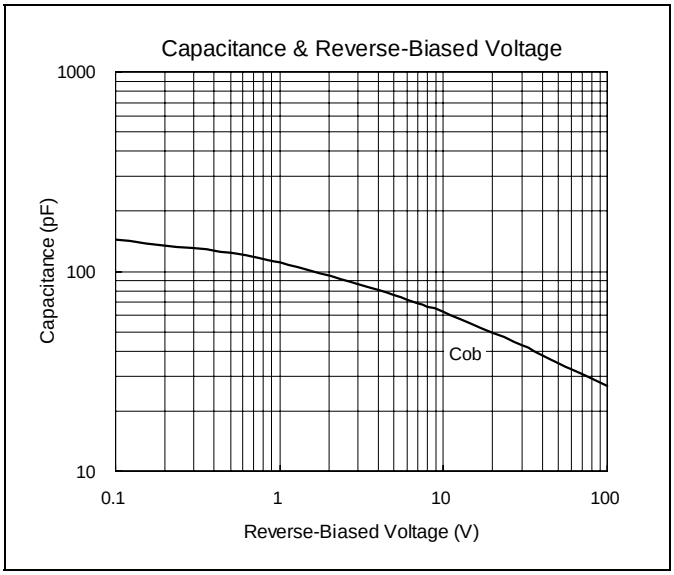


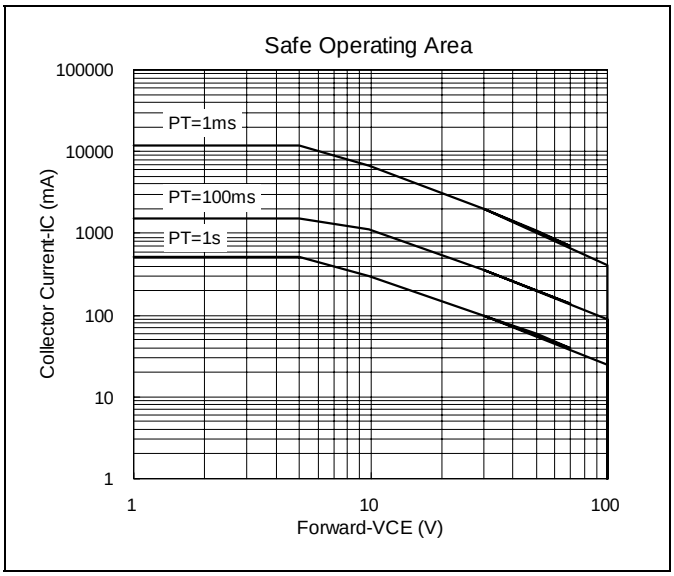


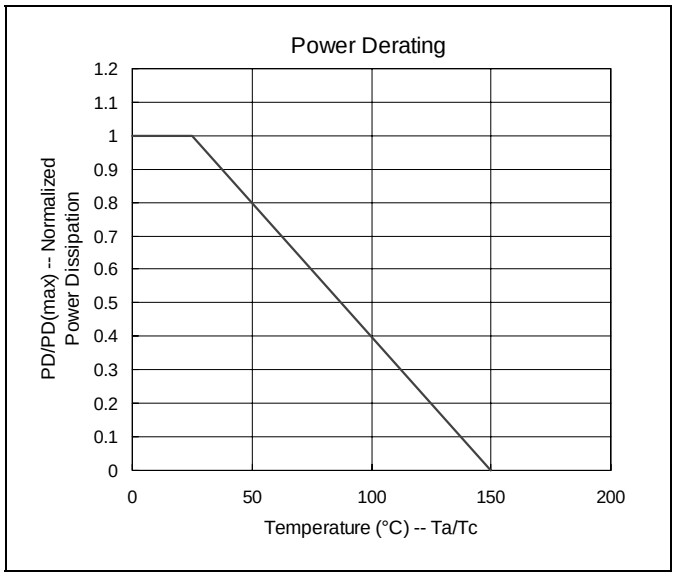




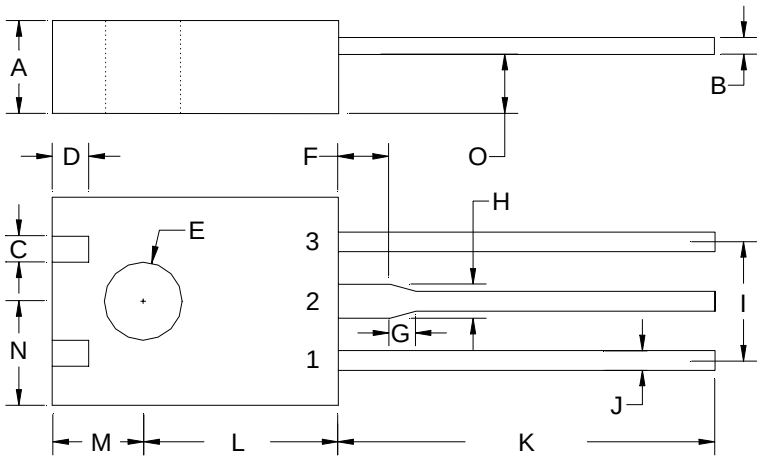





Safe Operating Area
100000
10000
1000
100
10
1
Collector Current-IC (mA)
PT=1ms
PT=100ms
PT=1s
1
10
100
Forward-VCE (V)

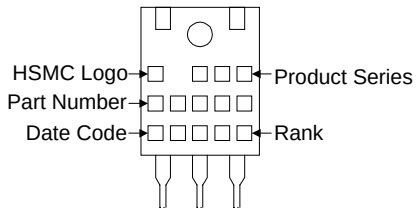

Power Derating
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
PD/PD(max) -- Normalized
Power Dissipation
0
50
100
150
200
Temperature (°C) -- Ta/Tc

TO-126ML Dimension



3-Lead TO-126ML Plastic Package
HSMC Package Code : D

Marking :



Style : Pin 1.Emitter 2.Collector 3.Base

*: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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