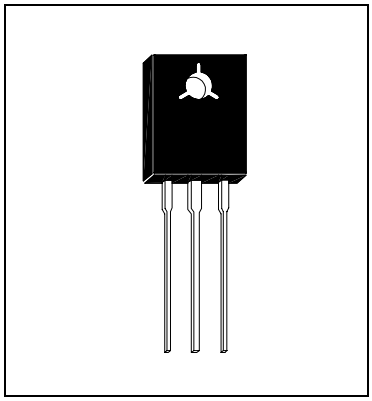
HBD139

NPN POWER TRANSISTORS



Description

PNP power transistor in a TO-126 plastic package. NPN complements: HBD140

Features

- High Current (max. 1.5A)
- Low Voltage (max. 80V)

Applications

Driver stages in hi-fi amplifiers and television circuits.

Limiting Values

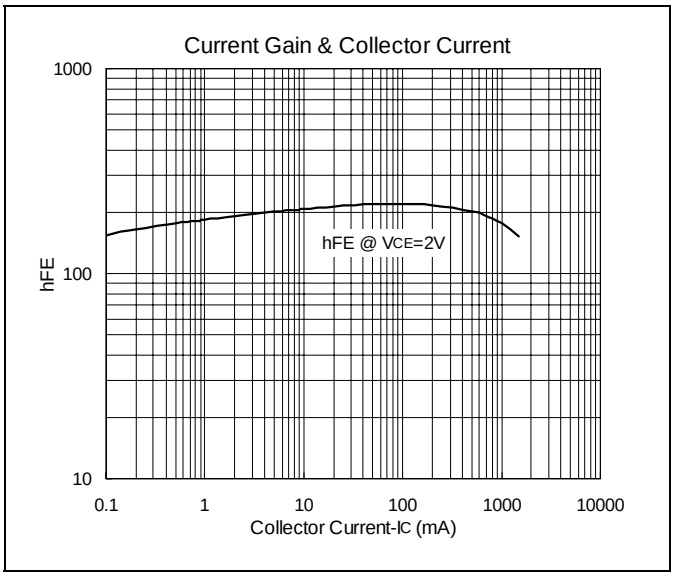
Symbol	Parametor	Conditions	Min.	Max.	Unit
VCBO	Collector-Base Voltage	Open Emitter	-	100	V
VCEO	Collector-Emitter Voltage	Open Base	-	80	V
VEBO	Emitter-Base Voltage	Open Collector	-	5	V
IC	Collector Current (DC)		-	1.5	A
ICM	Peak Collector Current		-	2	A
IBM	Peak Base Current		-	1	A
PD	Total Dissipation at	Ta=25°C	-	1.2	W
		Tc=25°C	-	15	W
Tstg	Storage Temperature	-	-65	150	°C
Tj	Junction Temperature	-	-	150	°C
Tamb	Operating Ambient Temperature	-	-65	150	°C

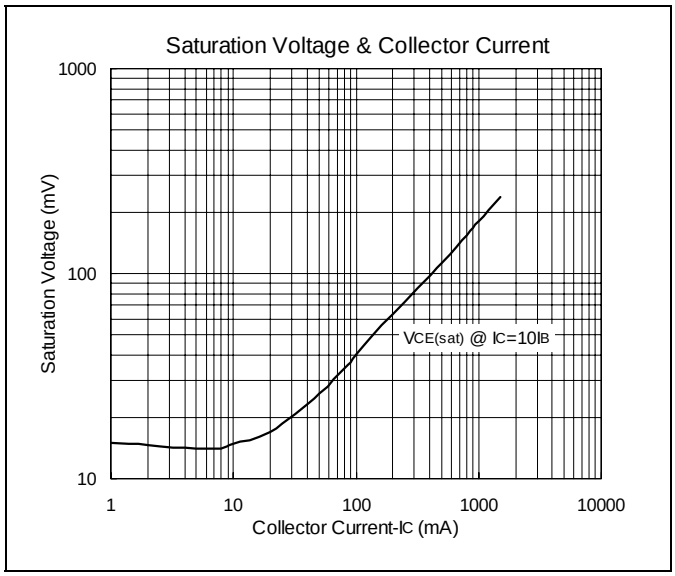
Electrical Characteristics (Tj=25°C, unless otherwise specified)

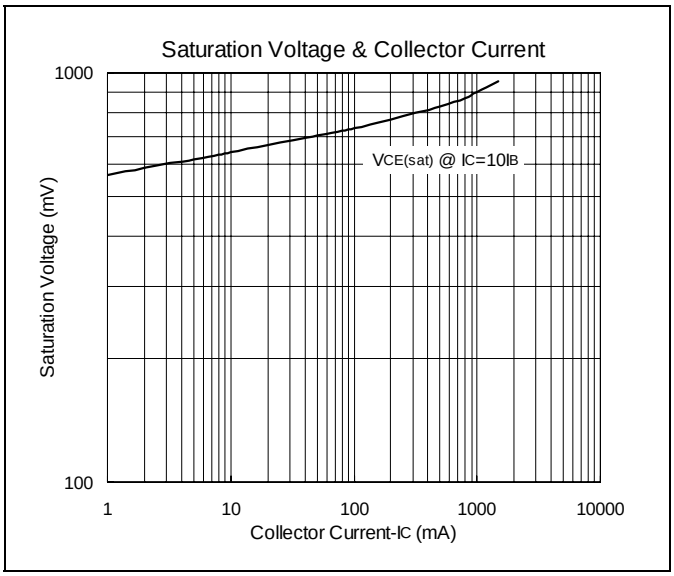
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
ICBO	Collector Cut-off Current	IE=0, VCB=30V	-	-	100	nA
IEBO	Emitter Cut-off Current	IC=0, VEB=5V	-	-	100	nA
*VCE(sat)	Collector-Emitter Saturation Voltage	IC=500mA, IB=50mA	-	-	0.5	V
*VBE	Base-Emitter Voltage	IC=500mA, VCE=2V	-	-	1	V
hFE	DC Current Gain	VCE=2V, IC=5mA	40	-	-	-
		VCE=2V, IC=150mA	63	-	250	-
		VCE=2V, IC=500mA,	25	-	-	-
fT	Transition Frequency	IC=50mA, VCE=5V, f=100MHz	-	240	-	MHz
*hFE1/hFE2	DC current gain ratio of the complementary pairs	|IC|=150mA, |VCE|=2V	-	0.9	1.6	-

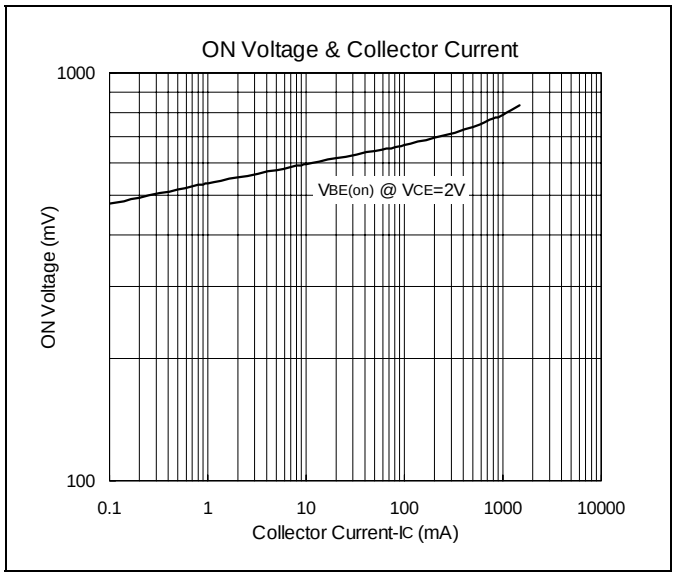
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

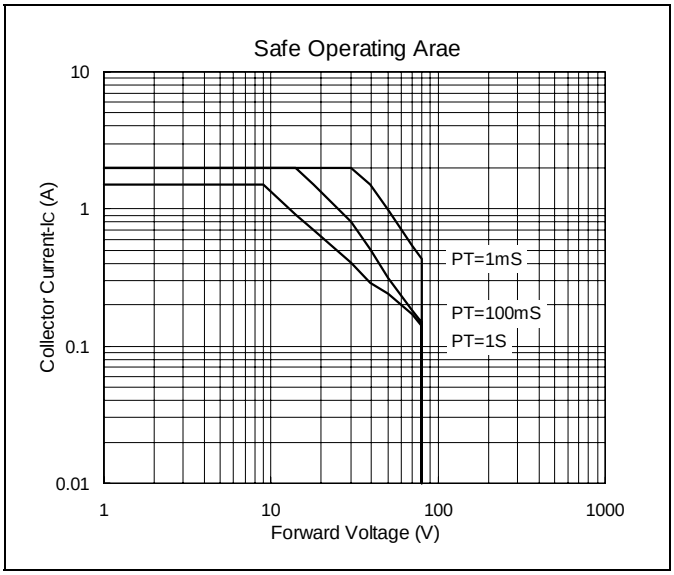
Characteristics Curve



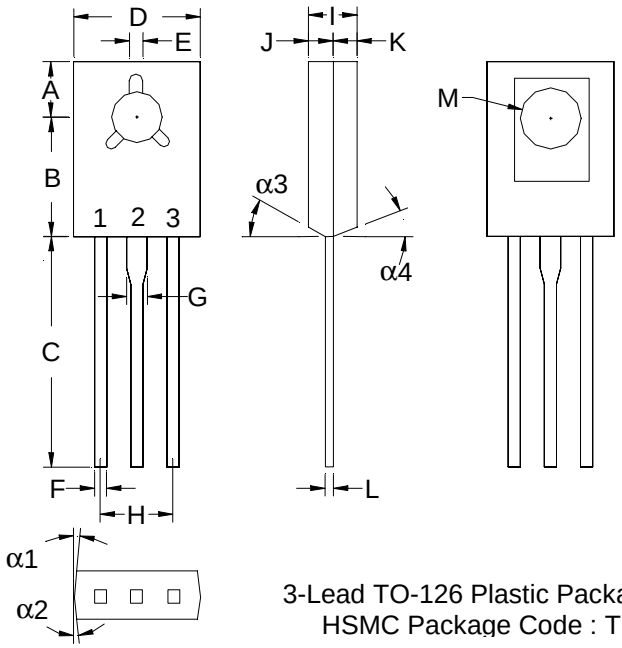






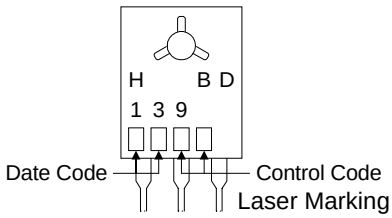


TO-126 Dimension



3-Lead TO-126 Plastic Package
HSMC Package Code : T

Marking :



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

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
α1	-	*3°	-	*3°	F	0.0280	0.0319	0.71	0.81
α2	-	*3°	-	*3°	G	0.0480	0.0520	1.22	1.32
α3	-	*3°	-	*3°	H	0.1709	0.1890	4.34	4.80
α4	-	*3°	-	*3°	I	0.0950	0.1050	2.41	2.66
A	0.1500	0.1539	3.81	3.91	J	0.0450	0.0550	1.14	1.39
B	0.2752	0.2791	6.99	7.09	K	0.0450	0.0550	1.14	1.39
C	0.5315	0.6102	13.50	15.50	L	-	*0.0217	-	*0.55
D	0.2854	0.3039	7.52	7.72	M	0.1378	0.1520	3.50	3.86
E	0.0374	0.0413	0.95	1.05					

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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