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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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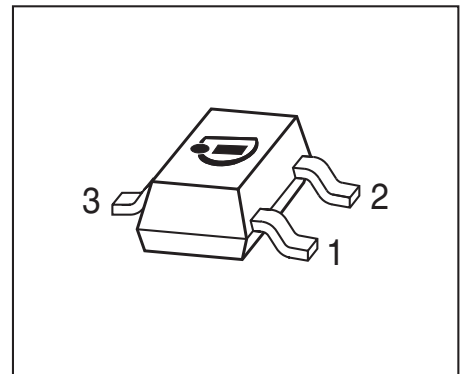
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PNP Silicon Darlington Transistors

- For general AF applications
- High collector current
- High current gain
- Complementary types: BCV27, BCV47 (NPN)
- Pb-free (RoHS compliant) package
- Qualified according AEC Q101



Type	Marking	Pin Configuration			Package
		1=B	2=E	3=C	
BCV26	FDs	1=B	2=E	3=C	SOT23
BCV46	FEs	1=B	2=E	3=C	SOT23

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}		V
BCV26		30	
BCV46		60	
Collector-base voltage	V_{CBO}		
BCV26		40	
BCV46		80	
Emitter-base voltage	V_{EBO}	10	
Collector current	I_C	500	mA
Peak collector current, $t_p \leq 10$ ms	I_{CM}	800	
Base current	I_B	100	
Peak base current	I_{BM}	200	
Total power dissipation- $T_S \leq 74$ °C	P_{tot}	360	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 210	K/W

¹⁾For calculation of R_{thJA} please refer to Application Note AN077 (Thermal Resistance Calculation)

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC Characteristics

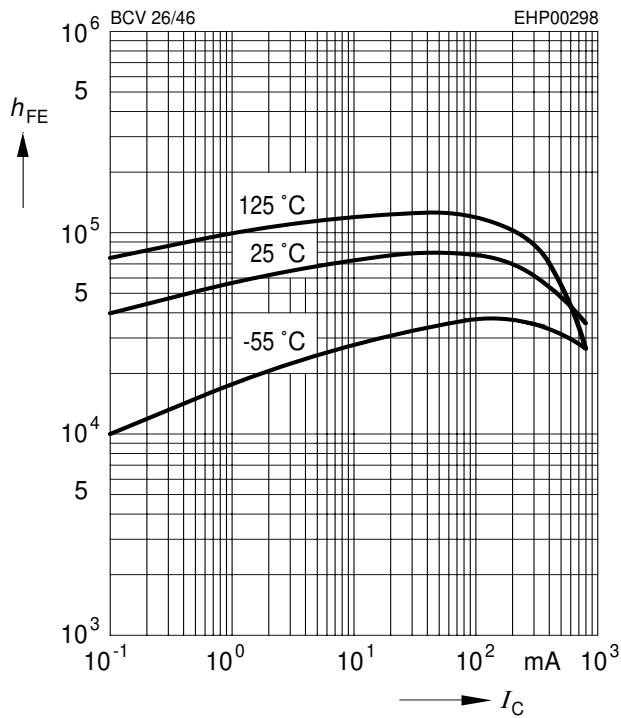
Collector-emitter breakdown voltage $I_C = 10 \text{ mA}$, $I_B = 0$, BCV26 $I_C = 10 \text{ mA}$, $I_B = 0$, BCV46	$V_{(BR)CEO}$	30 60	- -	- -	V
Collector-base breakdown voltage $I_C = 100 \mu\text{A}$, $I_E = 0$, BCV26 $I_C = 100 \mu\text{A}$, $I_E = 0$, BCV46	$V_{(BR)CBO}$	40 80	- -	- -	
Emitter-base breakdown voltage $I_E = 10 \mu\text{A}$, $I_C = 0$	$V_{(BR)EBO}$	10	-	-	
Collector-base cutoff current $V_{CB} = 30$, $I_E = 0$, BCV26 $V_{CB} = 60$, $I_E = 0$, BCV46 $V_{CB} = 30$, $I_E = 0$, $T_A = 150^\circ\text{C}$, BCV26 $V_{CB} = 60$, $I_E = 0$, $T_A = 150^\circ\text{C}$, BCV46	I_{CBO}	- - - -	- - - -	0.1 0.1 10 10	μA
Emitter-base cutoff current $V_{EB} = 4 \text{ V}$, $I_C = 0$	I_{EBO}	-	-	100	nA
DC current gain ¹⁾ $I_C = 100 \mu\text{A}$, $V_{CE} = 1 \text{ V}$, BCV26 $I_C = 100 \mu\text{A}$, $V_{CE} = 1 \text{ V}$, BCV46 $I_C = 10 \text{ mA}$, $V_{CE} = 5 \text{ V}$, BCV26 $I_C = 10 \text{ mA}$, $V_{CE} = 5 \text{ V}$, BCV46 $I_C = 100 \text{ mA}$, $V_{CE} = 5 \text{ V}$, BCV26 $I_C = 100 \text{ mA}$, $V_{CE} = 5 \text{ V}$, BCV46 $I_C = 0.5 \text{ A}$, $V_{CE} = 5 \text{ V}$, BCV26 $I_C = 0.5 \text{ A}$, $V_{CE} = 5 \text{ V}$, BCV46	h_{FE}	4000 2000 10000 4000 20000 10000 4000 2000	- - - - - - - -	- - - - - - - -	-
Collector-emitter saturation voltage ¹⁾ $I_C = 100 \text{ mA}$, $I_B = 0.1 \text{ mA}$	V_{CEsat}	-	-	1	V
Base emitter saturation voltage ¹⁾ $I_C = 100 \text{ mA}$, $I_B = 0.1 \text{ mA}$	V_{BEsat}	-	-	1.5	

¹Pulse test: $t < 300\mu\text{s}$; $D < 2\%$
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
AC Characteristics					
Transition frequency $I_C = 50\text{ mA}$, $V_{CE} = 5\text{ V}$, $f = 100\text{ MHz}$	f_T	-	200	-	MHz
Collector-base capacitance $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{cb}	-	4.5	-	pF

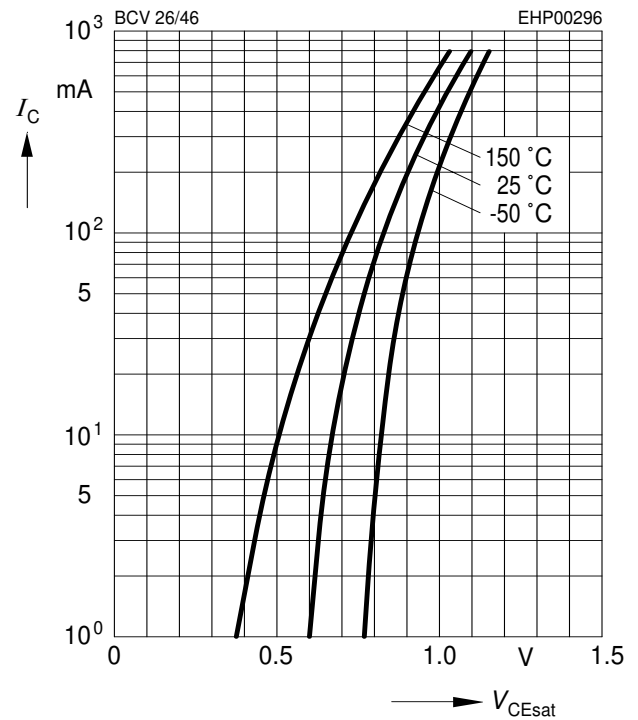
DC current gain $h_{FE} = f(I_C)$

$V_{CE} = 5\text{ V}$



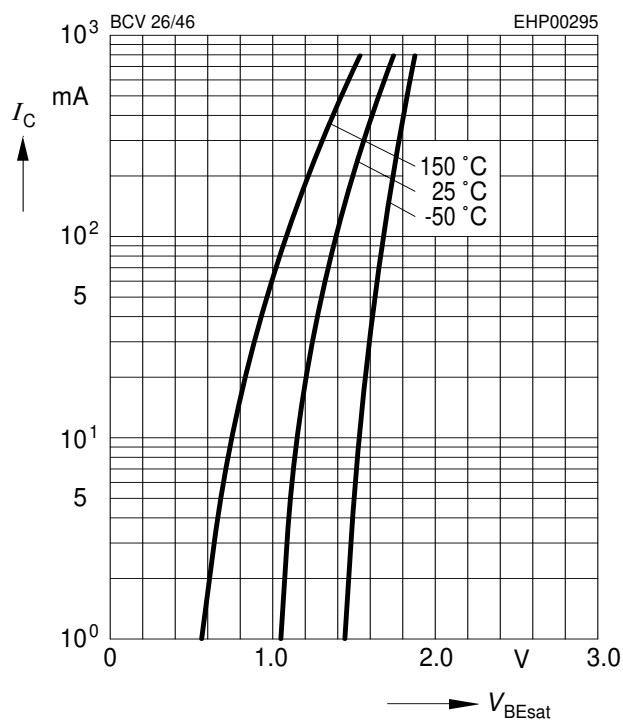
Collector-emitter saturation voltage

$I_C = f(V_{CEsat}), h_{FE} = 1000$



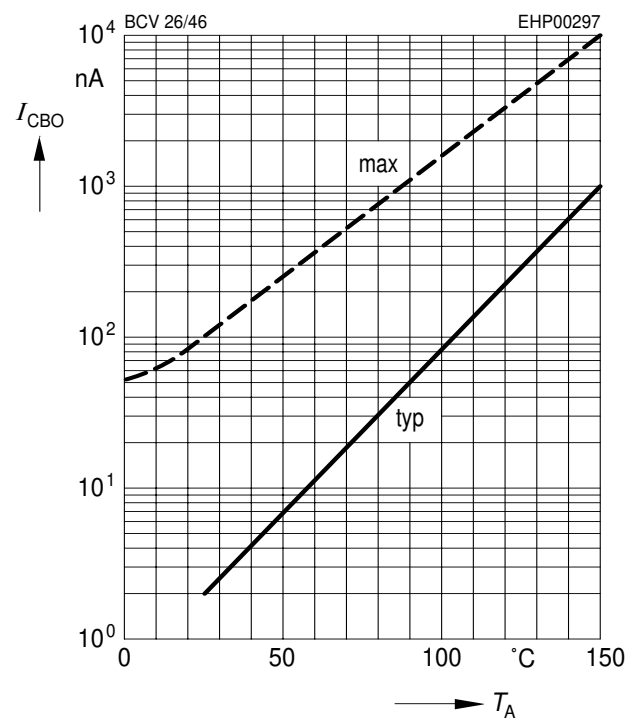
Base-emitter saturation voltage

$I_C = f(V_{BEsat}), h_{FE} = 1000$



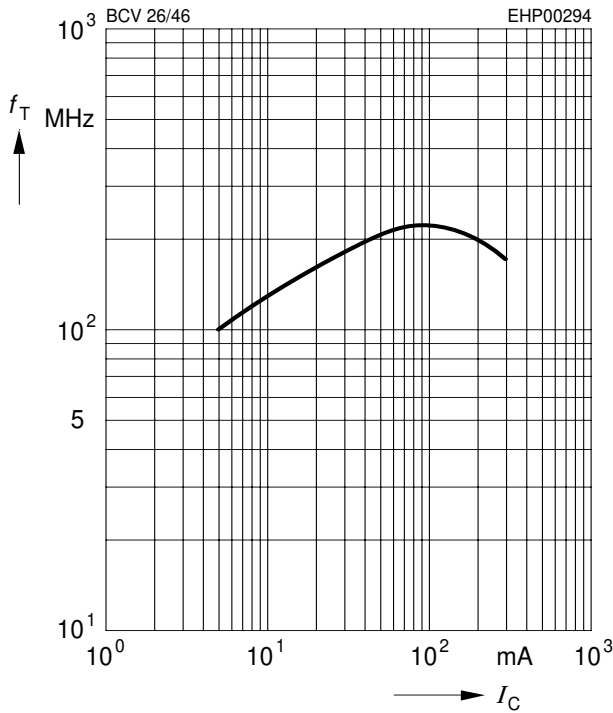
Collector cutoff current $I_{CBO} = f(T_A)$

$V_{CB} = V_{CEmax}$



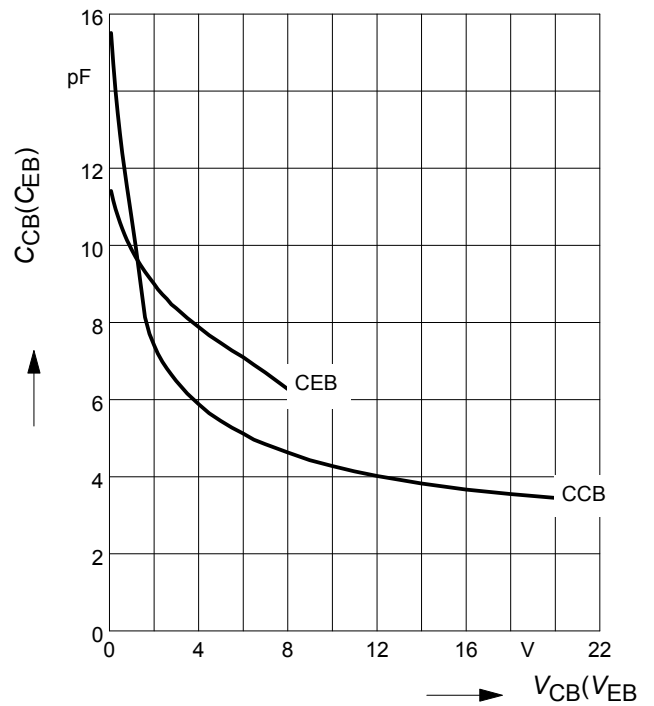
Transition frequency $f_T = f(I_C)$

$V_{CE} = 5\text{ V}$

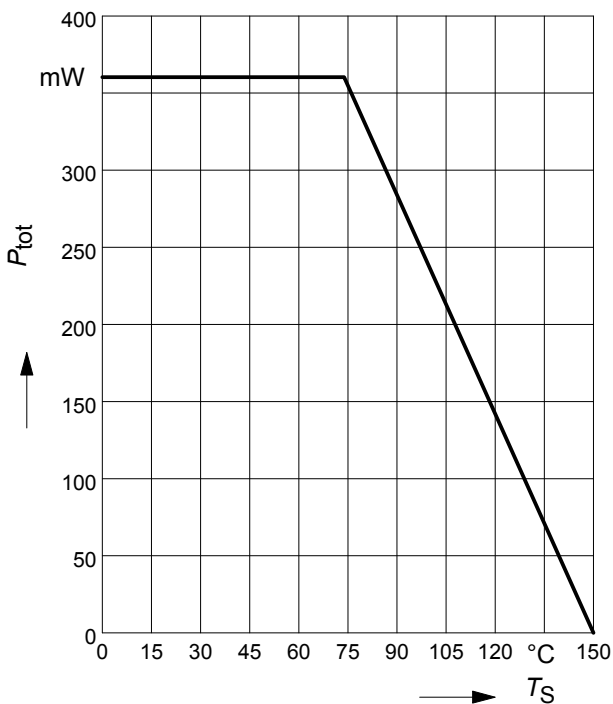


Collector-base capacitance $C_{cb} = f(V_{CB})$

Emitter-base capacitance $C_{eb} = f(V_{EB})$

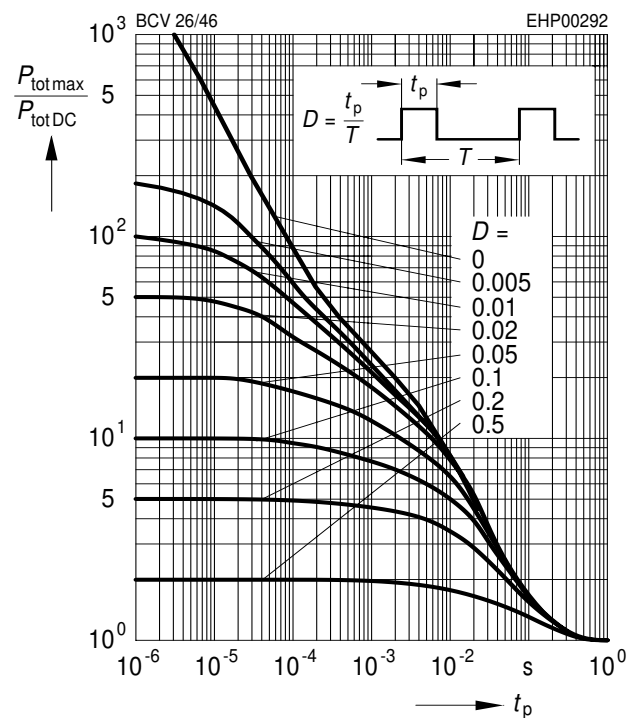


Total power dissipation $P_{tot} = f(T_S)$

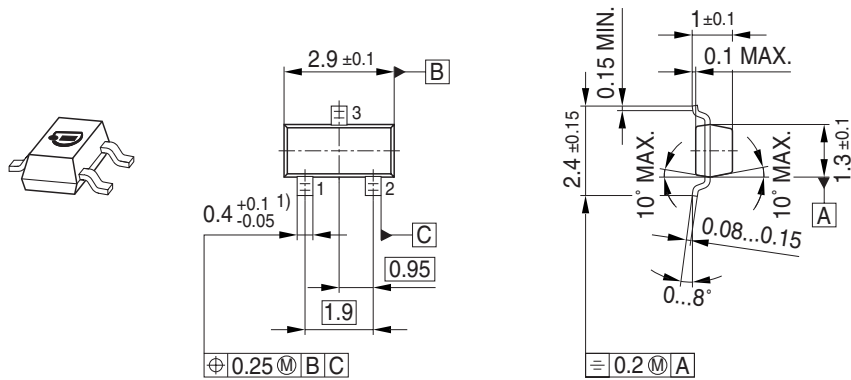


Permissible Pulse Load

$P_{totmax}/P_{totDC} = f(t_p)$

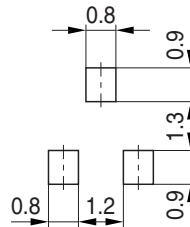


Package Outline

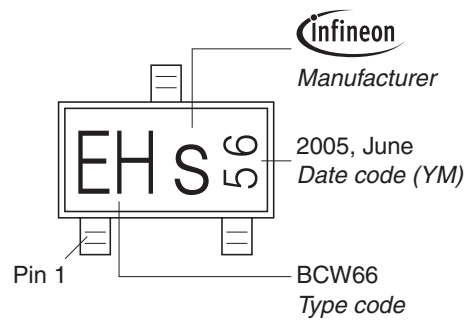


1) Lead width can be 0.6 max. in dambar area

Foot Print

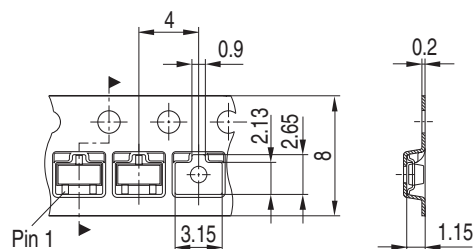


Marking Layout (Example)



Standard Packing

Reel \varnothing 180 mm = 3.000 Pieces/Reel
 Reel \varnothing 330 mm = 10.000 Pieces/Reel



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