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台舟电子

BCX52-16

PNP Switching Transistor

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Features

- For AF driver and output stages.
- High collector current.
- Low collector-emitter saturation voltage.
- Complementary types: TPBCX54/TPBCX55/TPBCX56.

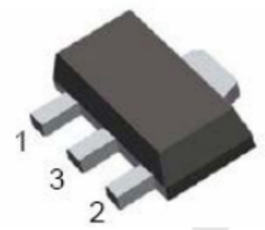
Applications

- Medium power general purposes.
- Driver stages of audio amplifiers.

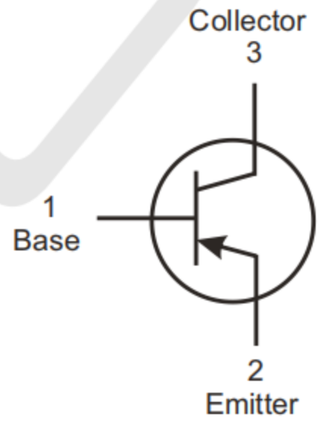
Ordering Information

- Shipping Qty:1000 /7inch Tape& Reel

SOT-89



Circuit Diagram



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
I_{CM}	Collector Current -Peak	-1.5	A
P_D	Total Device Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	℃

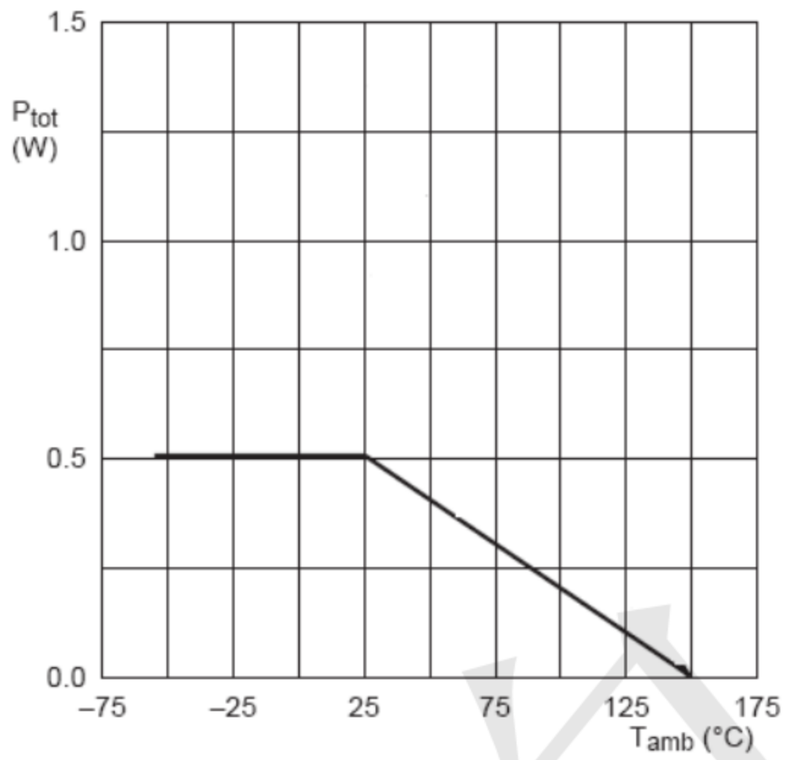
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Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA I_B=0	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V I_E=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-2V I_C=-5mA	25			
		V_{CE}=-2V I_C=-150mA	40		250	
		V_{CE}=-2V I_C=-150mA -10 -16	63 100		160 250	
		V_{CE}=-2V I_C=-500mA	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA I_B=-50mA			-0.5	V
Base-emitter voltage	V_{BE}	I_C=-500mA ,V_{CE}=-2V			-1	V
Transition frequency	f_T	V_{CE}=-10 I_C=-50mA, f=20MH		125		MHz

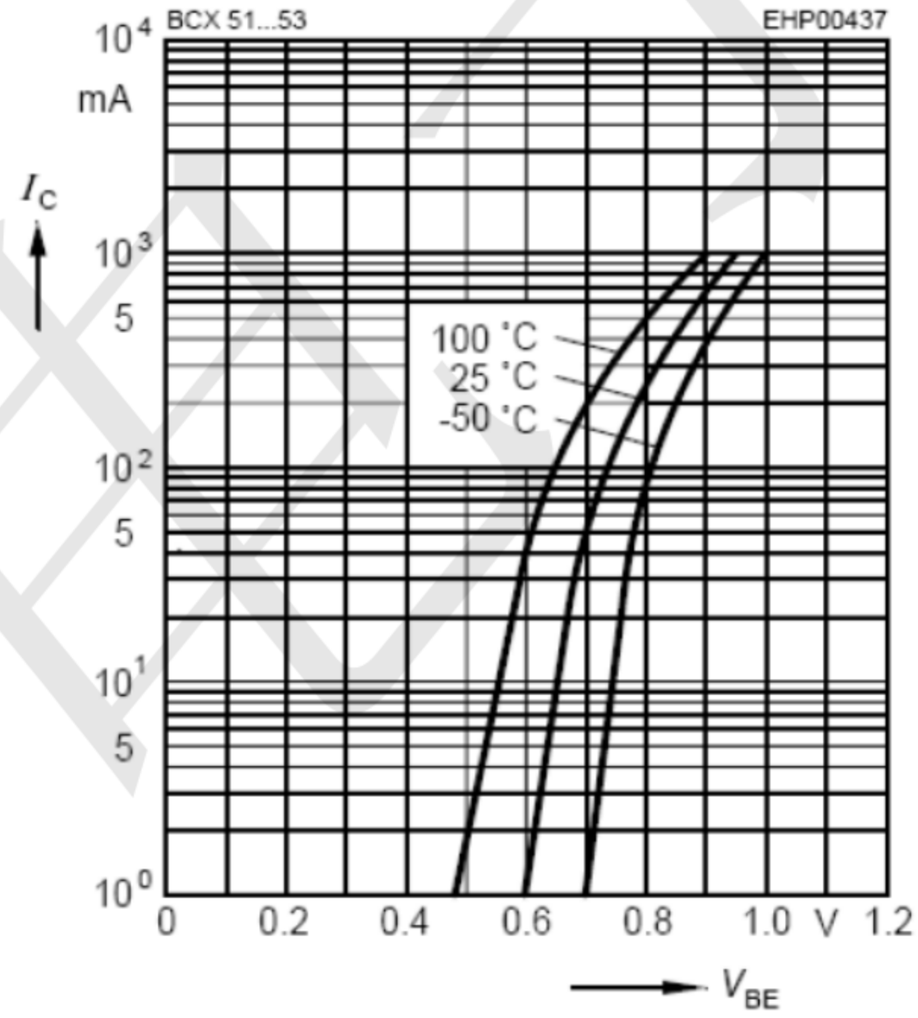
Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

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



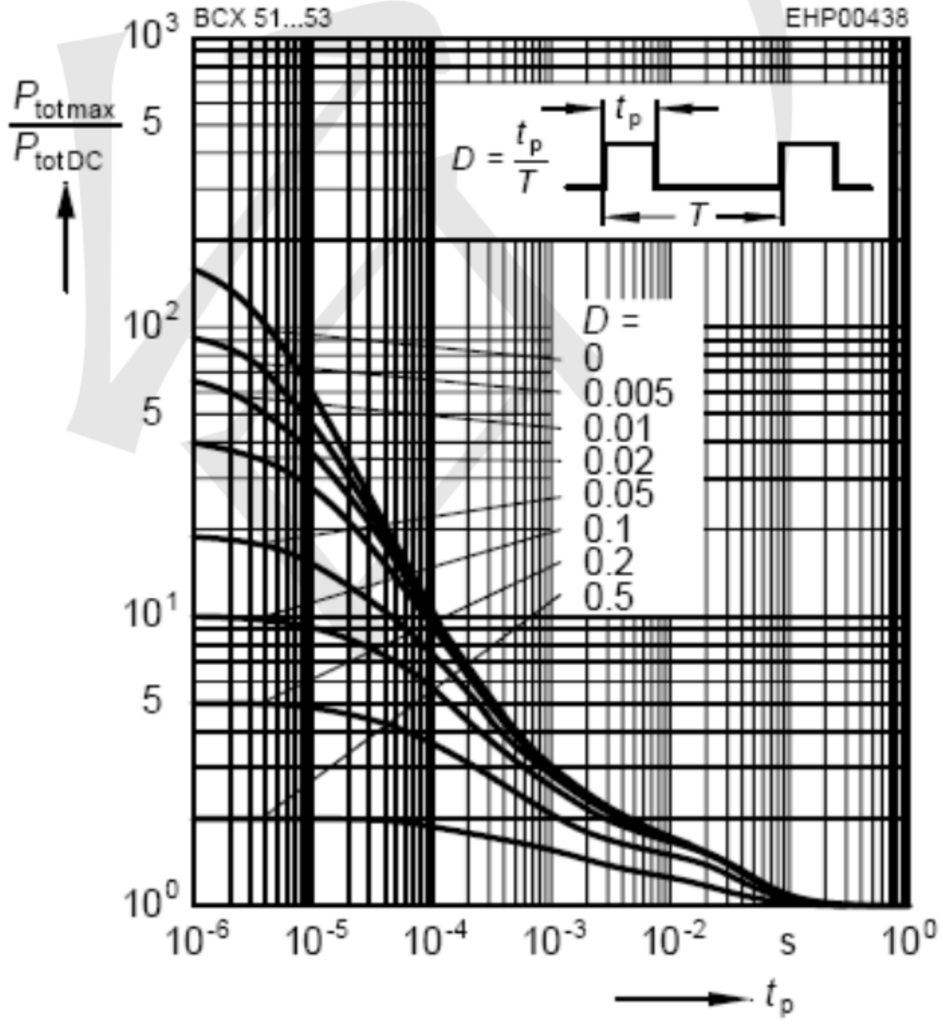
Collector current $I_C = f(V_{BE})$

V_{CE} = 2V



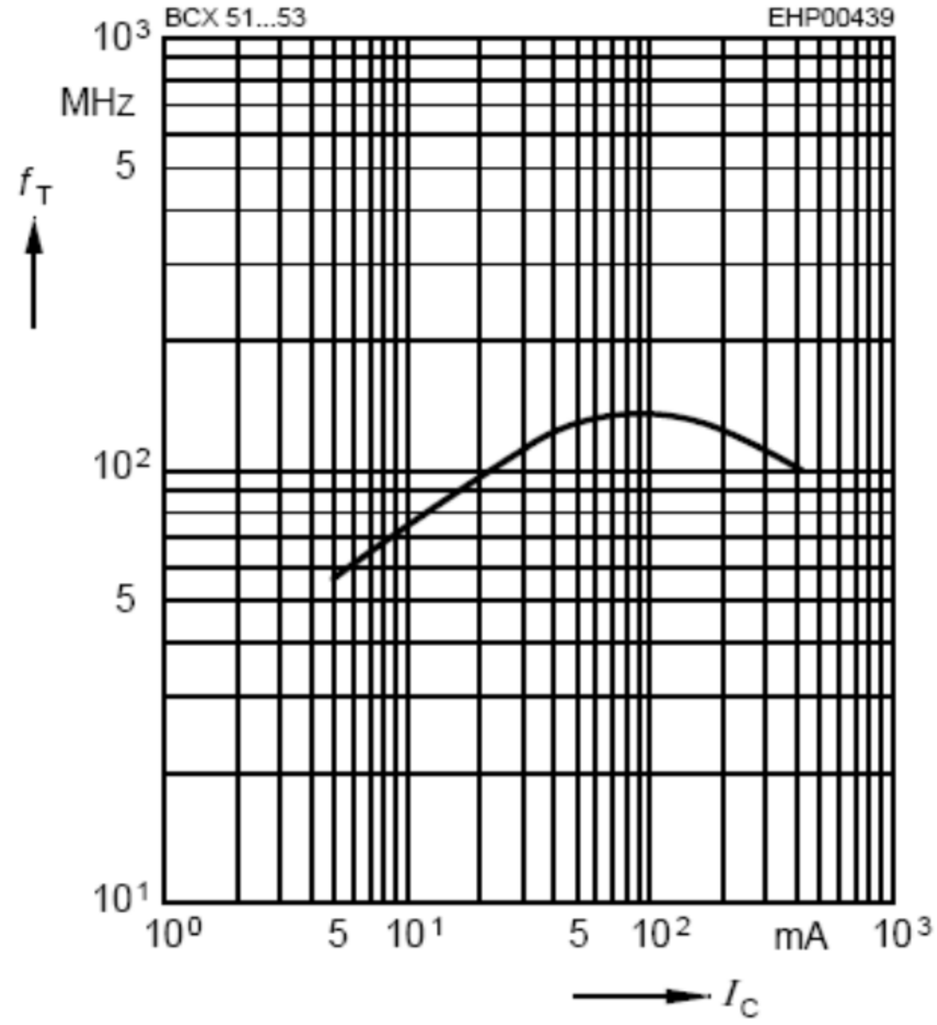
Permissible pulse load

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



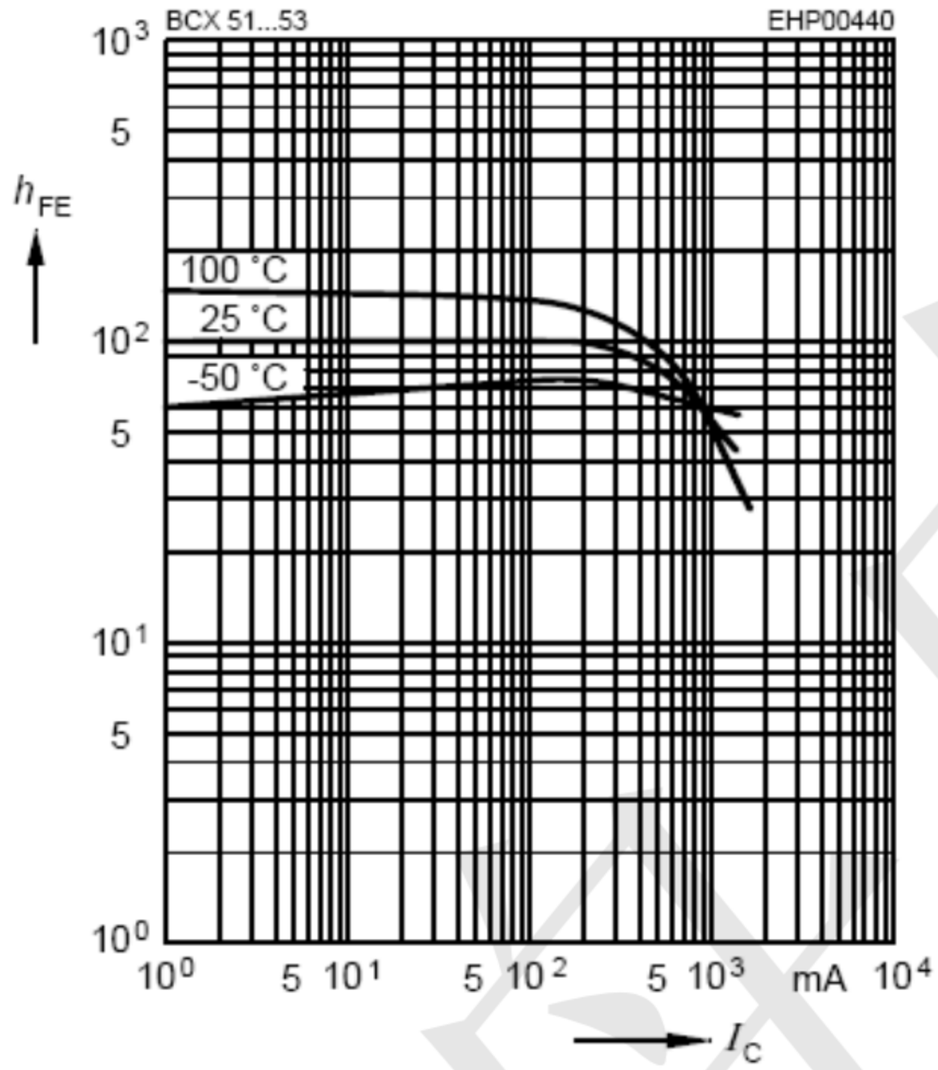
Transition frequency $f_T = f(I_C)$

V_{CE} = 10V



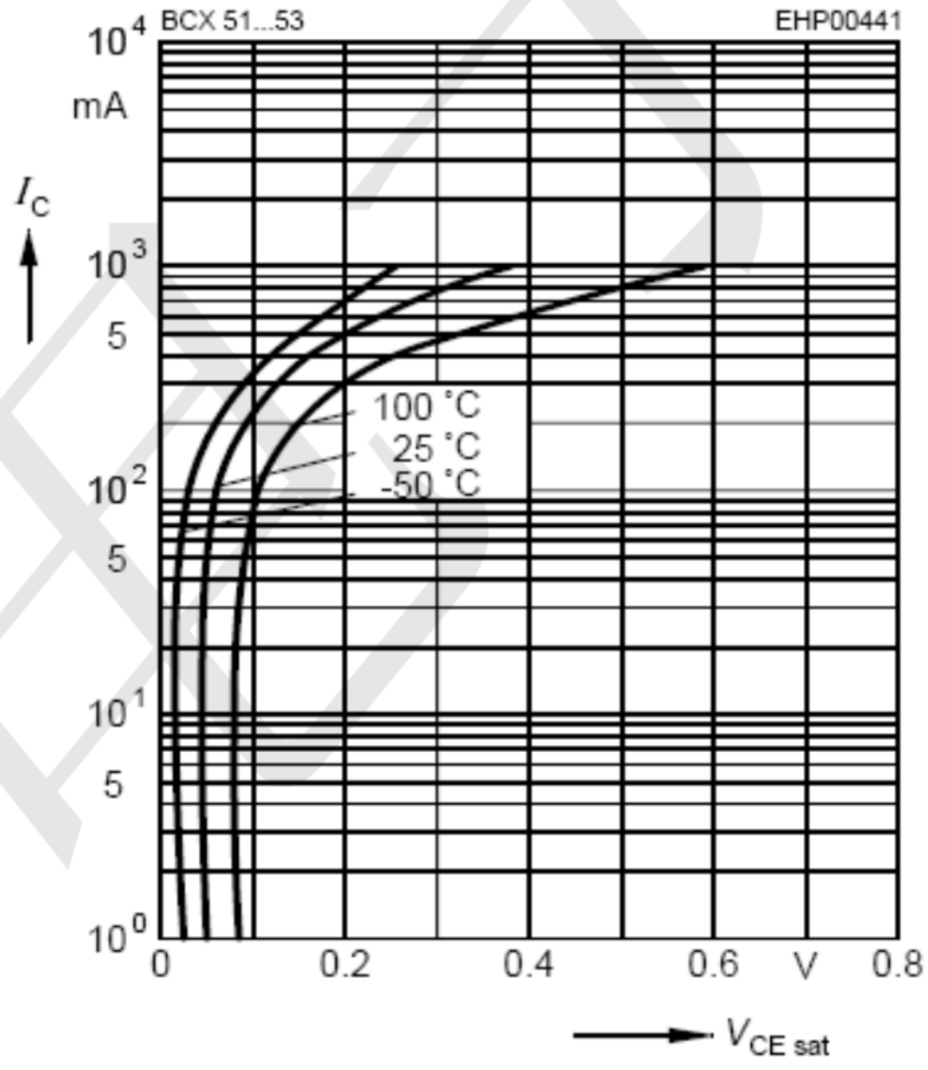
DC current gain $h_{FE} = f(I_C)$

V_{CE} = 2V



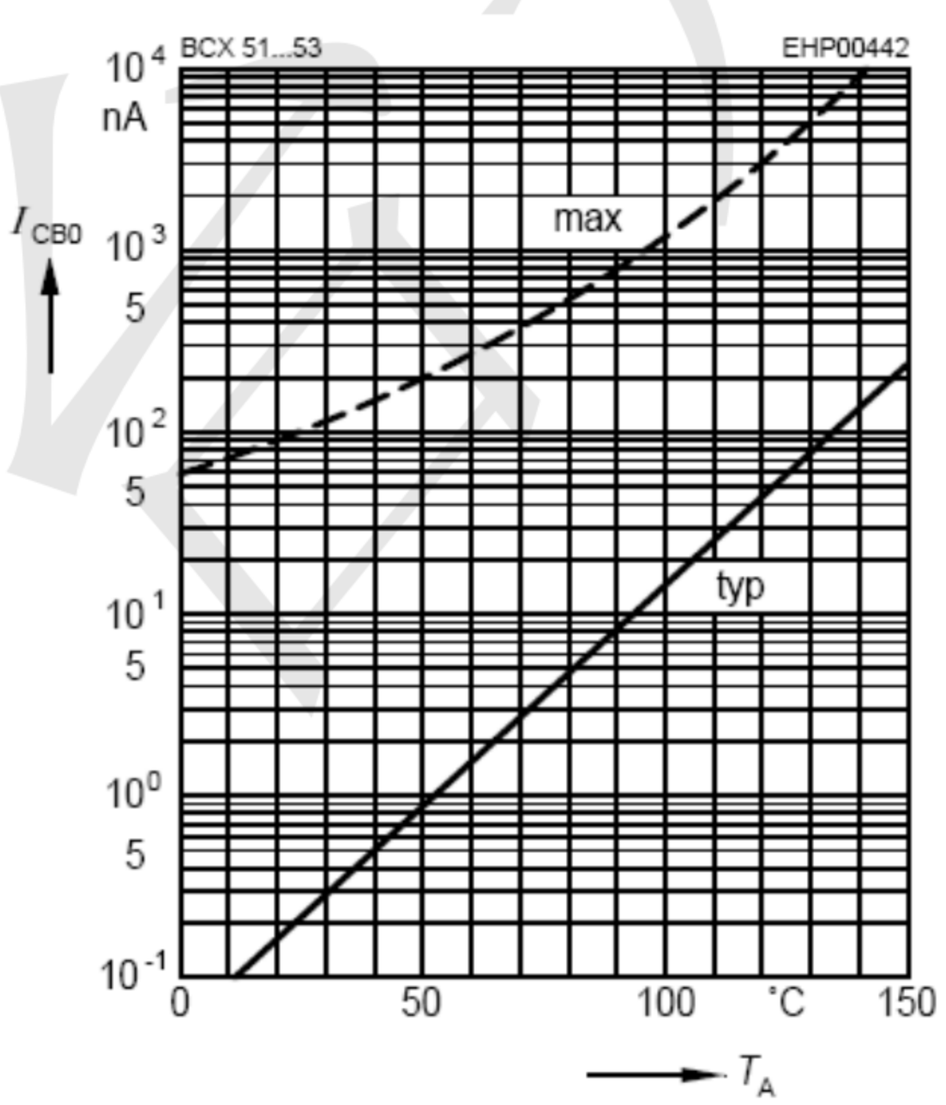
Collector-emitter saturation voltage

$I_C = f(V_{CEsat})$, h_{FE} = 10



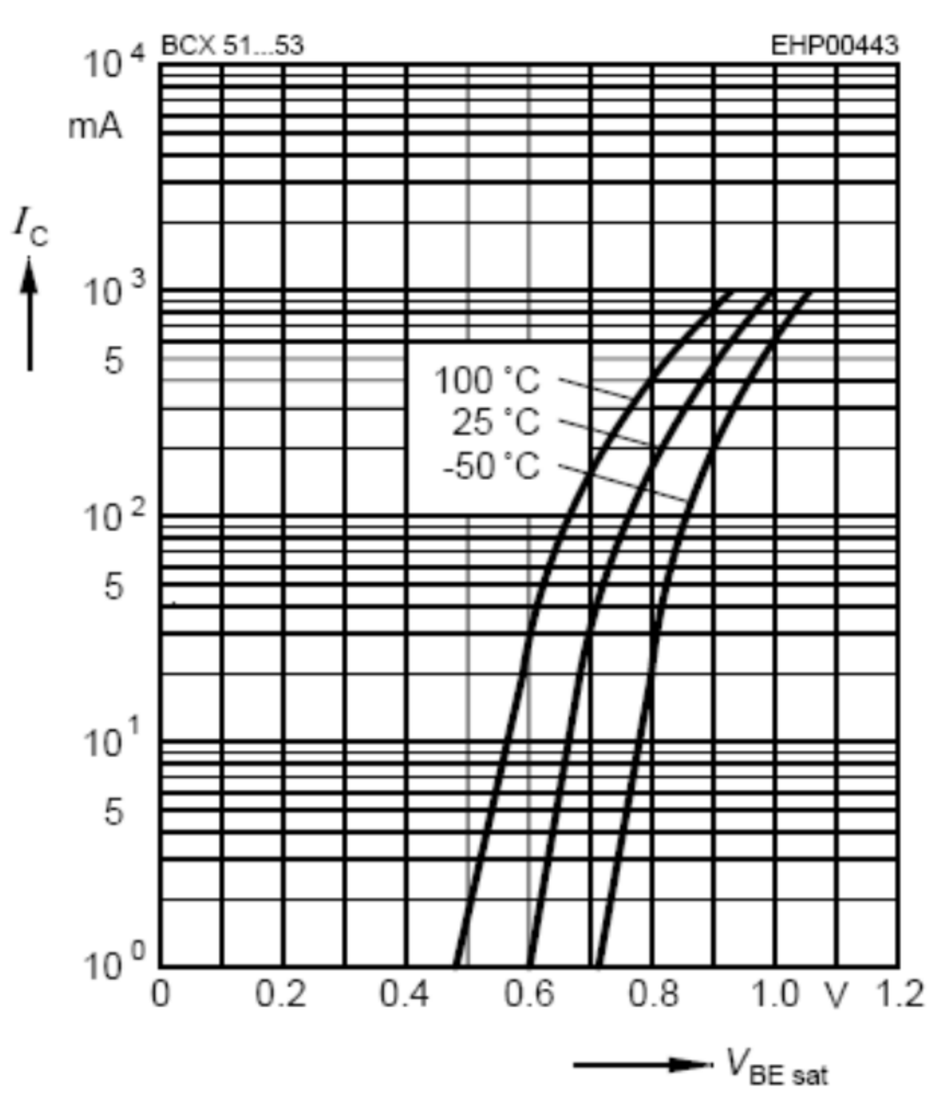
Collector cutoff current $I_{CBO} = f(T_A)$

V_{CB} = 30V

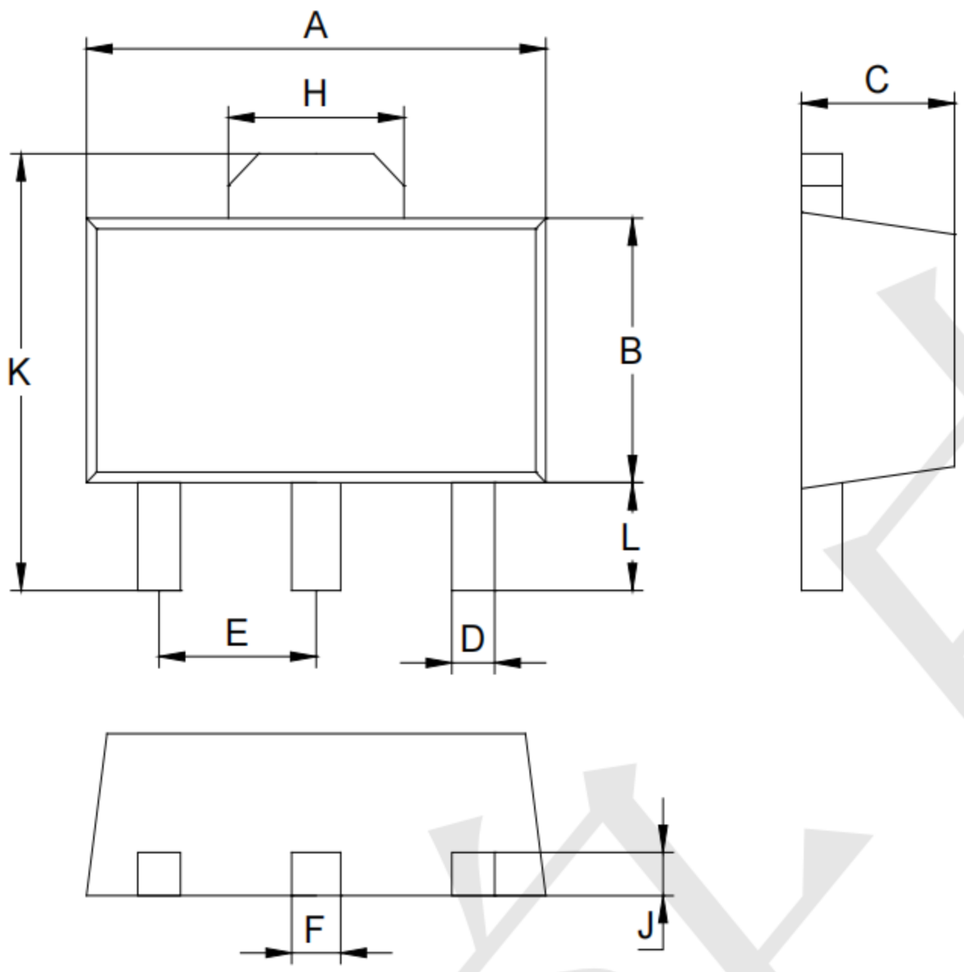


Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, h_{FE} = 10

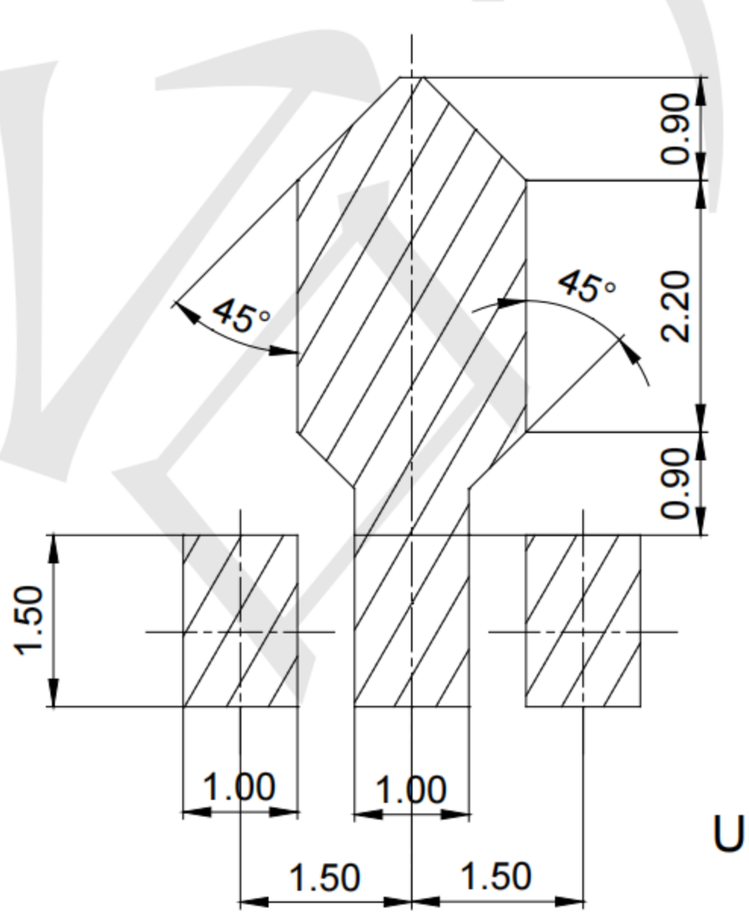


Outline Drawing - SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.30	1.70
D	0.30	0.50
E	1.40	1.60
F	0.38	0.58
H	1.60	1.80
J	0.30	0.50
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

Land Pattern - SOT-89



Unit: mm