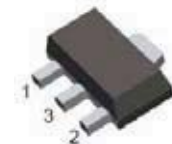
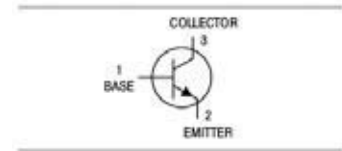


NPN Silicon AF Transistor: BCX54/BCX55/BCX56

Features:

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCX51/BCX52/BCX53



SOT-89

Ordering Information

Type No.	Marking:	Package Code:
BCX54	BA	SOT-89
BCX54-10	BC	SOT-89
BCX54-16	BD	SOT-89
BCX55	BE	SOT-89
BCX55-10	BG	SOT-89
BCX55-16	BM	SOT-89
BCX56	BH	SOT-89
BCX56-10	BK	SOT-89
BCX56-16	BL	SOT-89

Maximum Ratings & Characteristics: Tamb=25°C unless otherwise specified

Parameter:	Symbol:	Value:	Unit:
Collector - Base Voltage - BCX54 - BCX55 - BCX56	V_{CBO}	-45 -60 -100	V
Collector - Emitter Voltage - BCX54 - BCX55 - BCX56	V_{CEO}	-45 -60 -80	V
Emitter - Base Voltage	V_{ebo}	5	V
DC Collector Current	I_C	1	A
Peak Collector Current	I_{CM}	1.5	A
Base Current	I_B	100	mA
Peak Base Current	I_{BM}	200	mA
Total Power Dissipation, $T_s=130^\circ\text{C}$	P_{TOT}	500	mW
Junction and Storage Temperature	T_j, T_{stg}	-65 to +150	°C

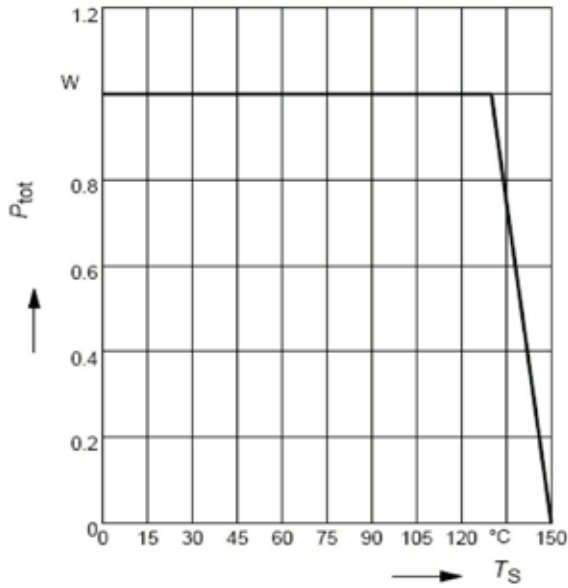
Maximum Ratings & Characteristics: Tamb=25°C unless otherwise specified

Parameter:	Symbol:	Test Conditions:	Min:	Typ:	Max:	Unit:
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$ BCX54 BCX55 BCX56	45 60 100			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$ BCX54 BCX55 BCX56	45 60 80			V
Emmitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -30V, I_E = 0$ $V_{CB} = 30V, I_E = 0, T_A = 150^\circ C$			100 20	nA μA
DC Current Gain	h_{FE}	$V_{CE} = -2V, I_C = -5mA$ $V_{CE} = -2V, I_C = -150mA$ $V_{CE} = -2V, I_C = -150mA$ -10 -16 $V_{CE} = -2V, I_C = -500mA$	25 40 63 100 25		250 160 250	
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	$V_{CE} = -10, I_C = -50,$ $f = 20MH$	100			MHz

Typical Characteristics: $T_{amb}=25^{\circ}C$ unless otherwise specified

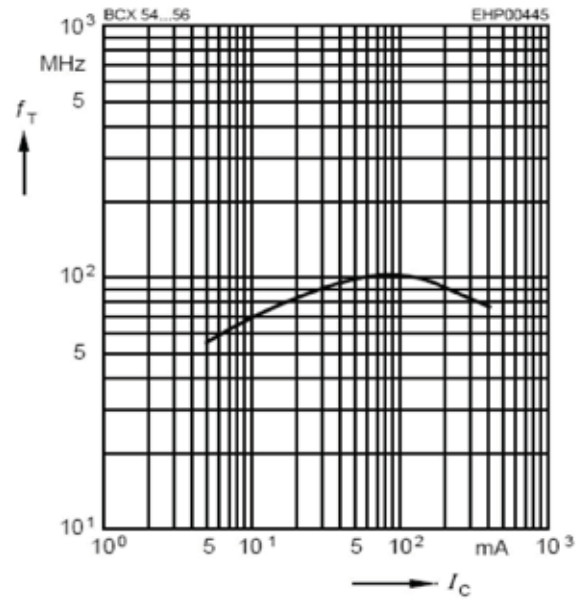
Ratings & Characteristic Curves

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



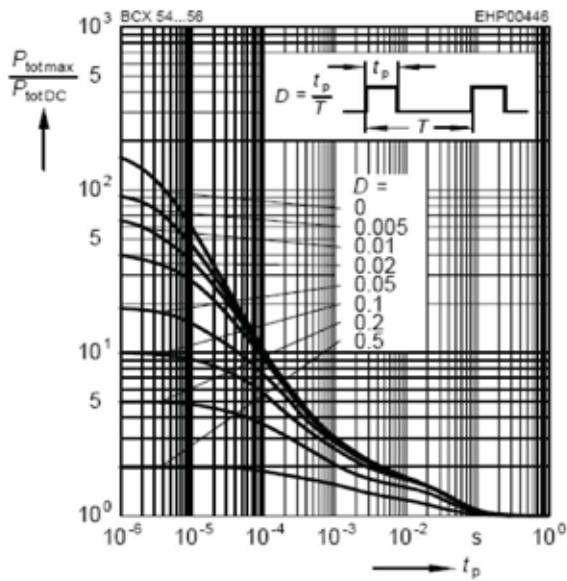
Transition frequency $f_T = f(I_C)$

$V_{CE} = 10V$



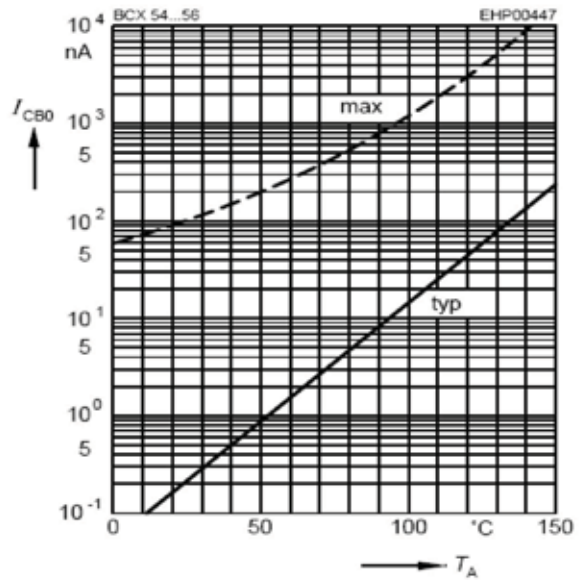
Permissible pulse load

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



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

$V_{CB} = 30V$

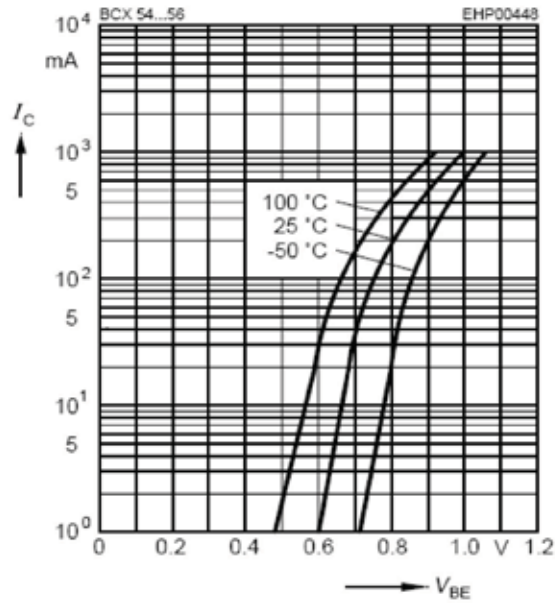


Typical Characteristics: Tamb=25°C unless otherwise specified

Ratings & Characteristic Curves

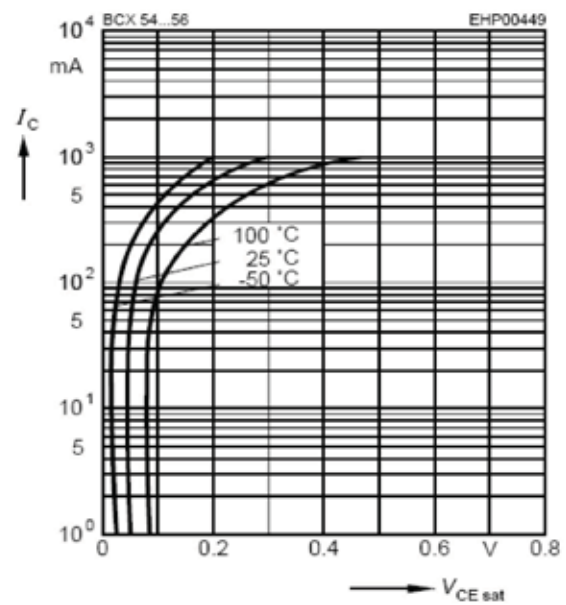
Collector current $I_C = f(V_{BE})$

$V_{CE} = 2V$



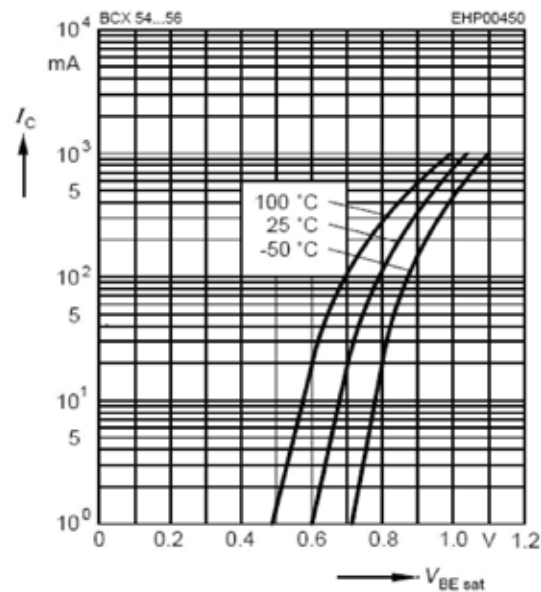
Collector-emitter saturation voltage $I_C = f(V_{CEsat}), h_{FE} = 10$

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



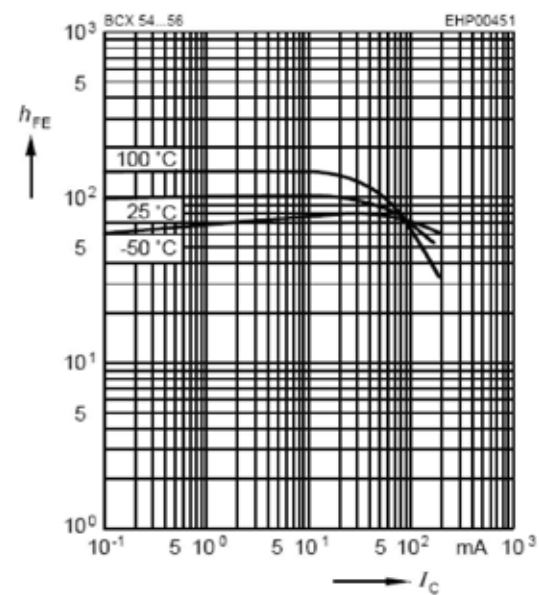
Base-emitter saturation voltage $I_C = f(V_{BEsat}), h_{FE} = 10$

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



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

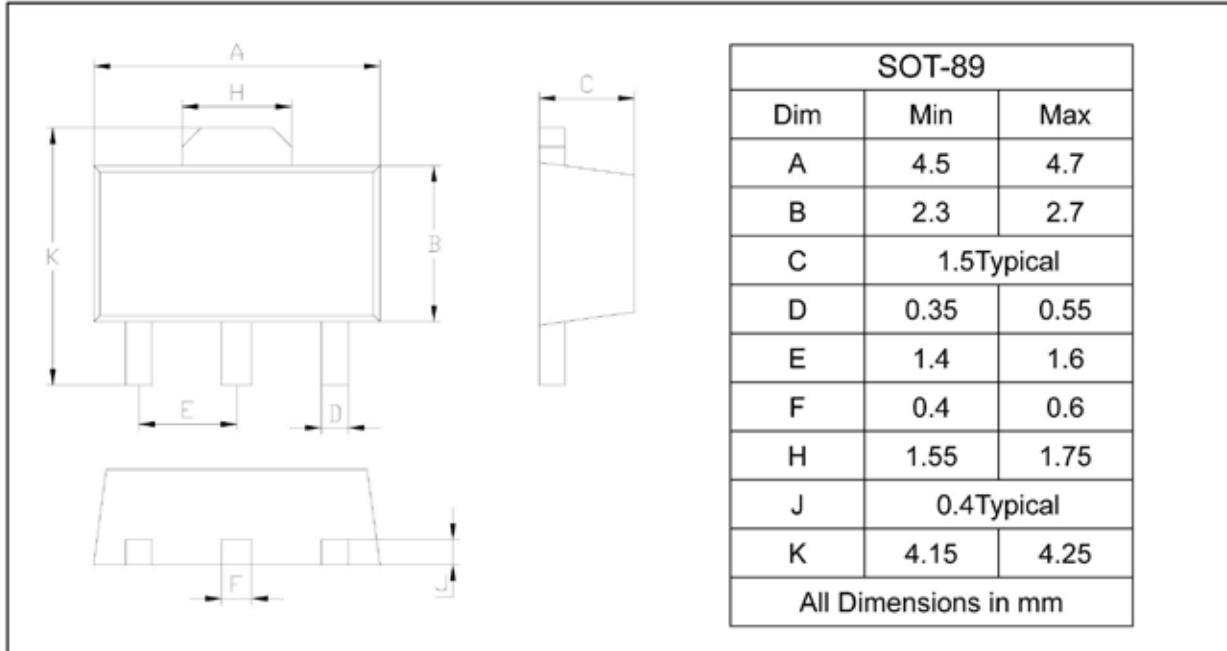
$V_{CE} = 2V$



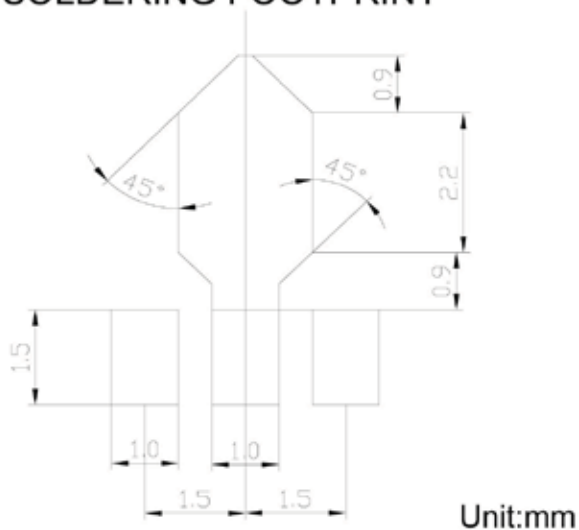
Package Outline

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BCX54/BCX55/BCX56	SOT-89	1000/Tape&Reel