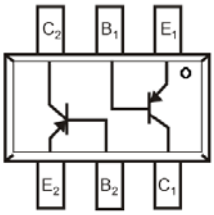
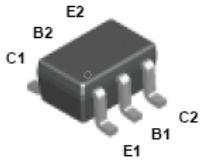
BC856S

Dual Bipolar Transistor(PNP+PNP)

FEATURES

- For AF input stages and driver applications
- High current gain
- Low collector-emitter saturation voltage
- Non-Halogen
- Two (galvanic) internal isolated Transistors with good matching in one package





SOT-363

APPLICATIONS

- General purpose switching and amplification.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC856S	3D	SOT-363

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-65	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-100	mA
P_C	Collector Dissipation	250	mW
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150	℃

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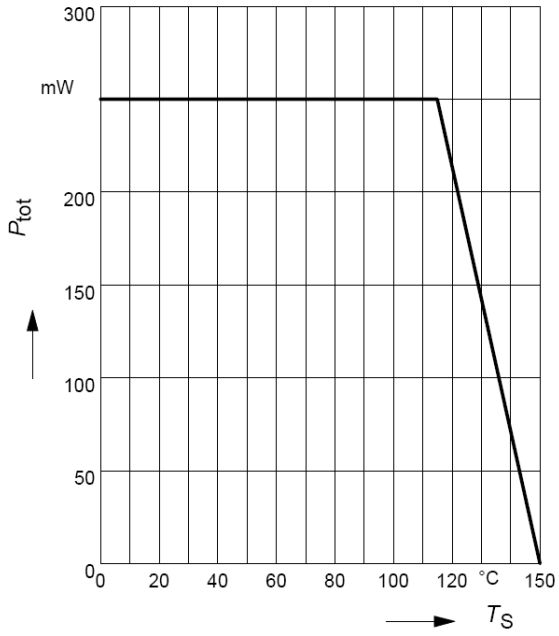
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA,I_E=0	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-65			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			-15	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-5V,I_C=-10uA V_{CE}=-5V,I_C=-2mA	200	250 290	475	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-10mA, I_B=-0.5mA I_C=-100mA, I_B=-5mA			-0.3 -0.65	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-10mA, I_B=-0.5mA I_C=-100mA, I_B=-5mA		-0.7 -0.85		V
Base-emitter voltage	$V_{BE(on)}$	I_C=-2mA,V_{CE}=-5V I_C=-10mA,V_{CE}=-5V	-0.6	-0.65	-0.75 -0.82	V
collector capacitance	C_c	V_{CB}=-10V,f=1MHz		3		pF
Transition frequency	F	I_C=-200uA,V_{CE}=-5V, R_S=2kΩ,f=1kHz, B=200Hz			10	dB
Transition frequency	f_T	V_{CE}=-5V, I_C= -20mA f=100MHz		250		MHz

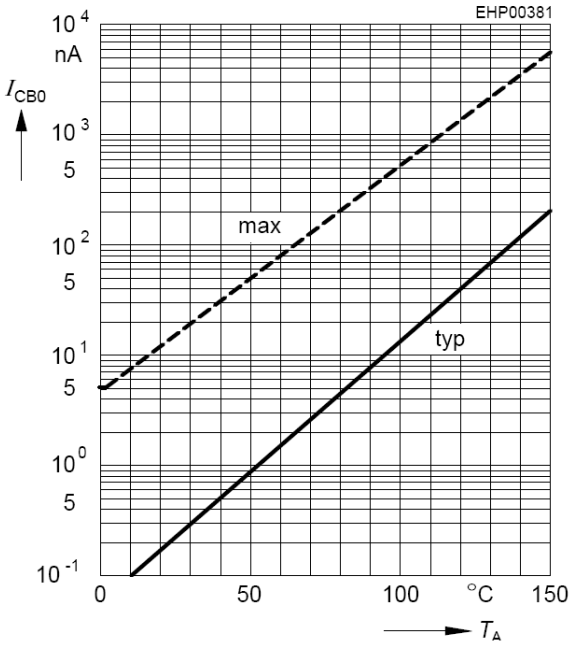
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

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



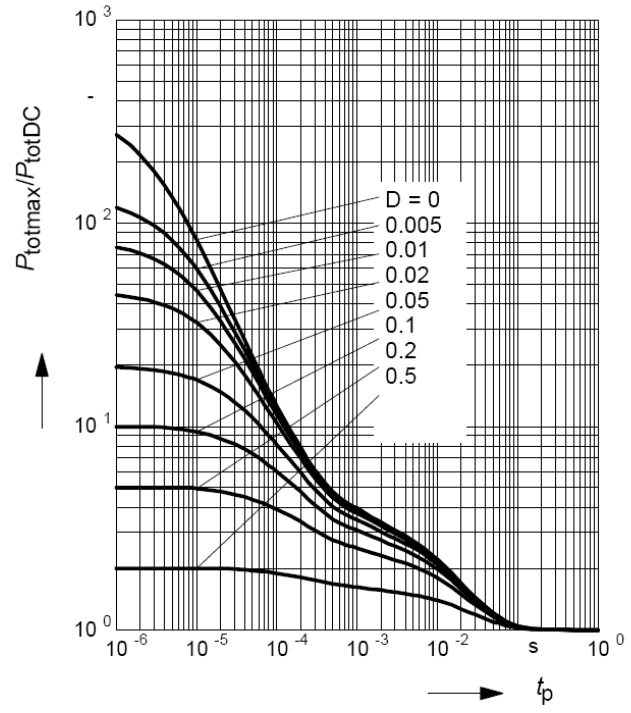
Collector cutoff current $I_{CBO} = f(T_A)$

V_{CB} = 30V



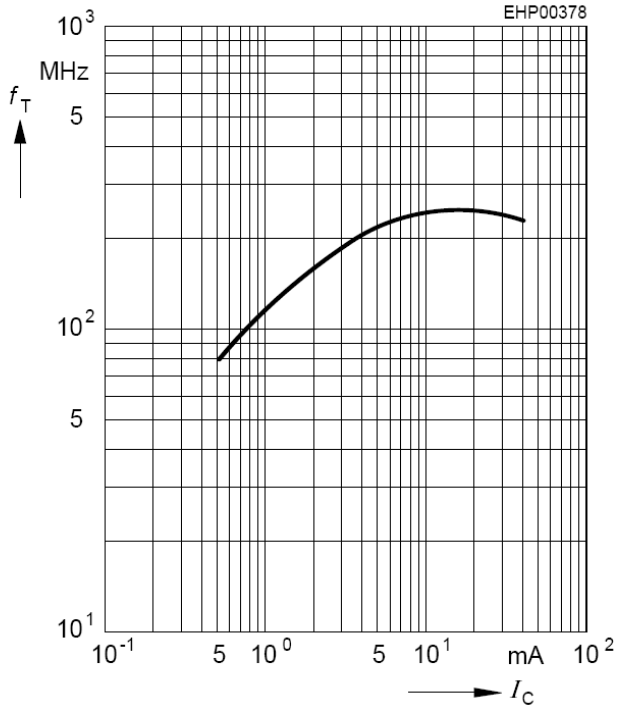
Permissible Pulse Load

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

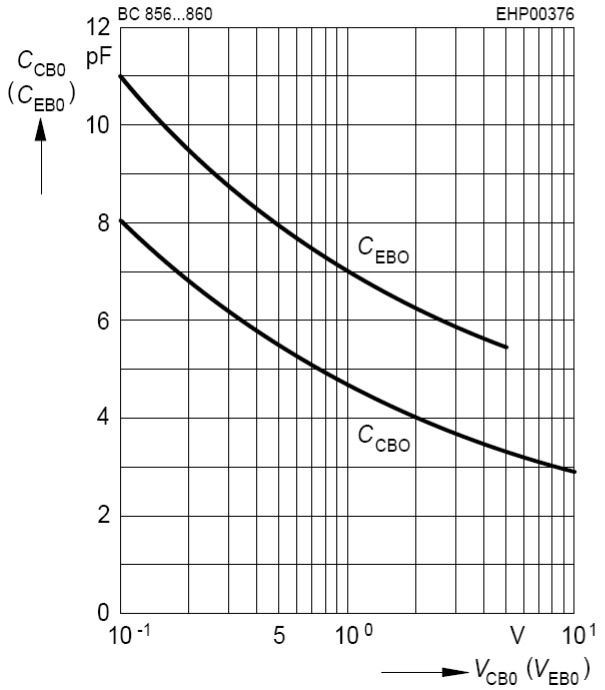


Transition frequency $f_T = f(I_C)$

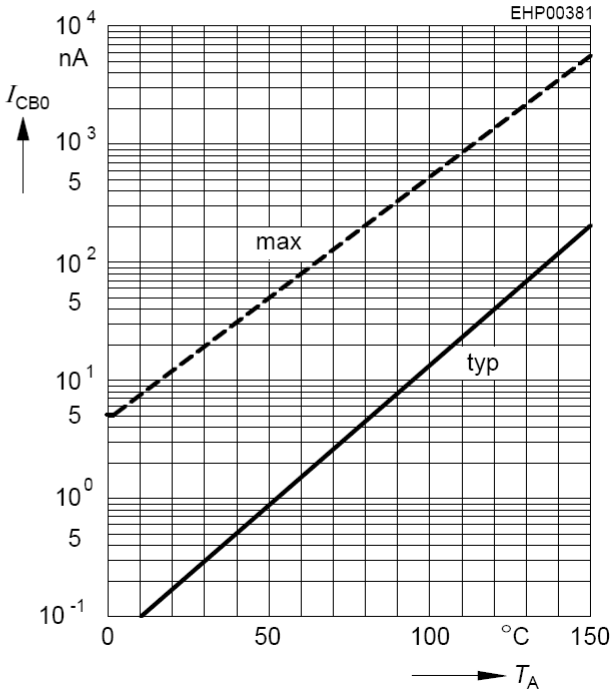
V_{CE} = 5V



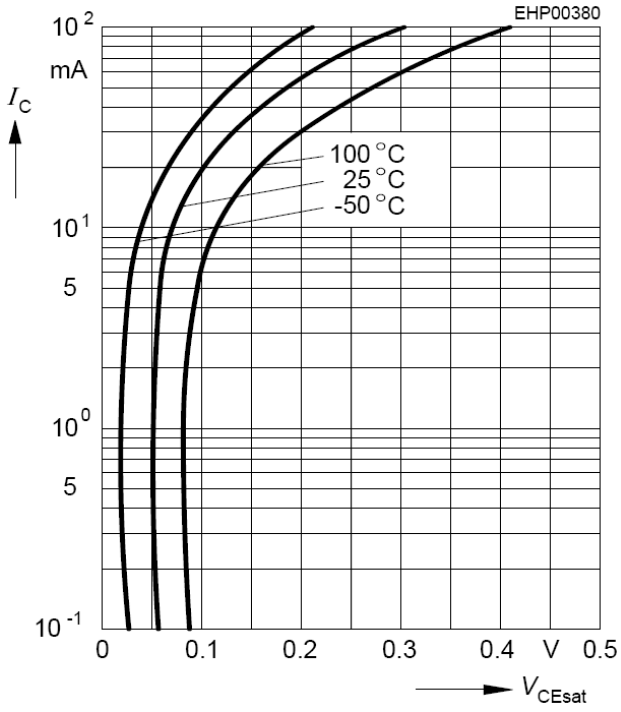
Collector-base capacitance $C_{CB} = f(V_{CBC}$
Emitter-base capacitance $C_{EB} = f(V_{EBO})$



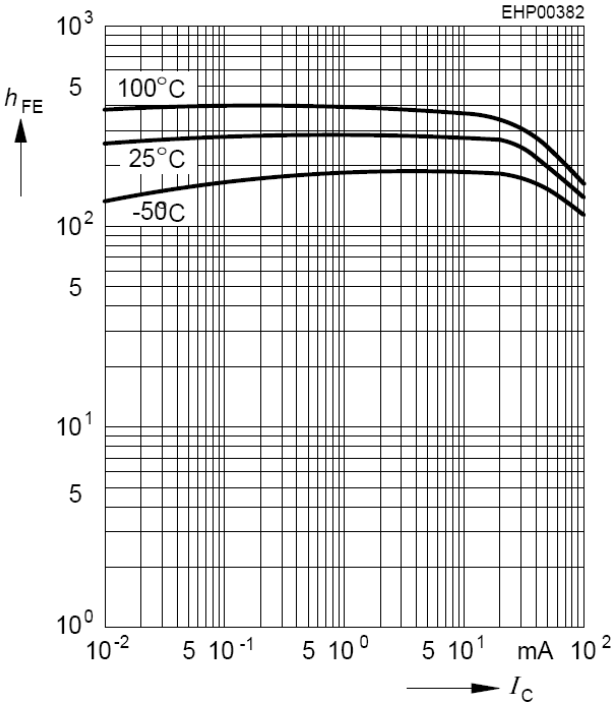
Collector cutoff current $I_{CBO} = f(T_A)$
V_{CB} = 30V



Collector-emitter saturation voltage
$I_C = f(V_{CEsat})$, h_{FE} = 20

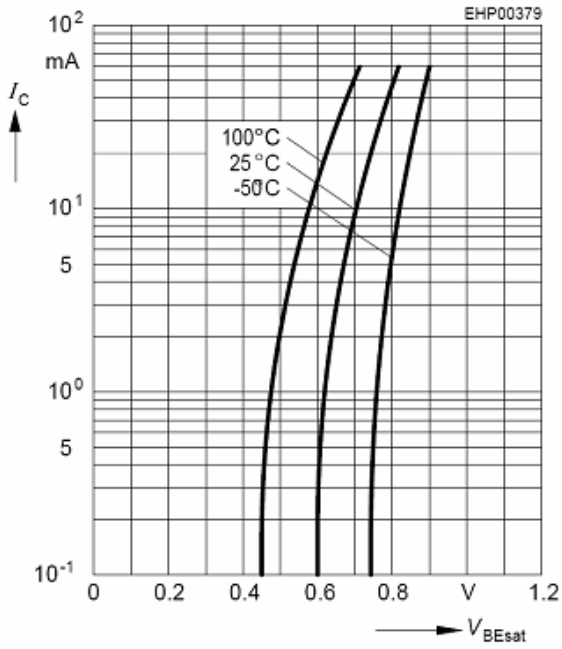


DC current gain $h_{FE} = f(I_C)$
V_{CE} = 5V



Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, $h_{FE} = 20$



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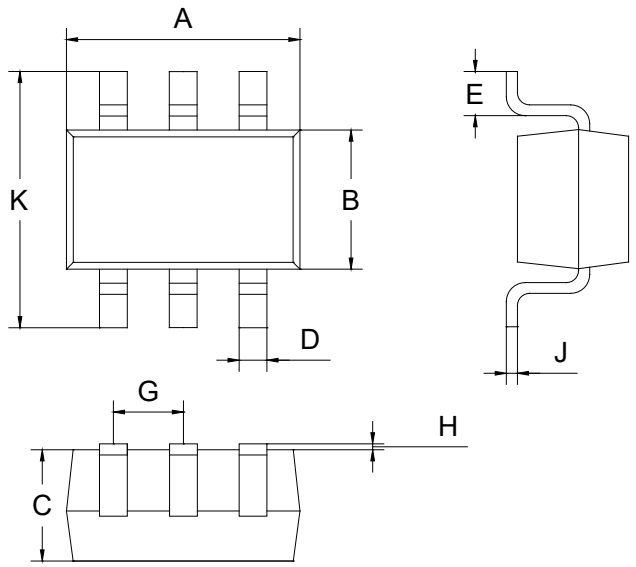
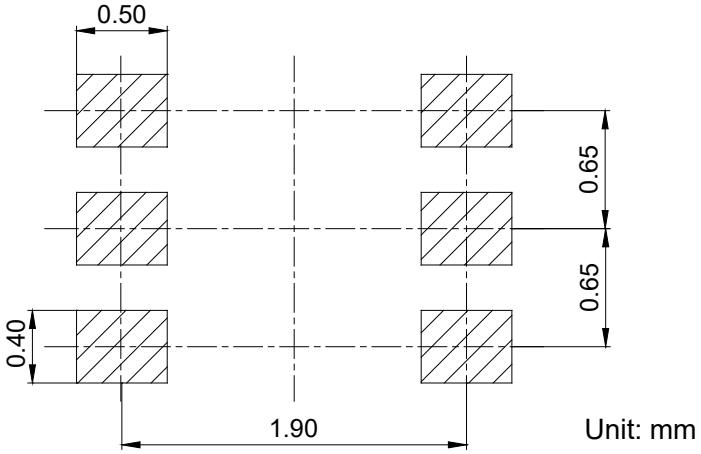
PACKAGE OUTLINE

Plastic surface mounted package



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BC856S	SOT-363	3000pcs / Tape & Reel