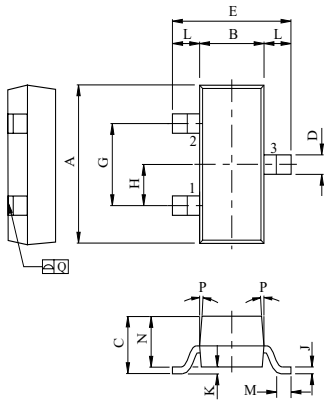
BC859/860

EPITAXIAL PLANAR PNP TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

· For Complementary with NPN Type BC849/850



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.40+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7°
Q	0.1 MAX

1. EMITTER
2. BASE
3. COLLECTOR

SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BC859	V_{CBO}	-30	V
	BC860		-50	
Collector-Emitter Voltage	BC859	V_{CEO}	-30	V
	BC860		-45	
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-100	mA
Collector Power Dissipation		P_C *	350	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 150	℃

P_C* : Package Mounted On 99.5% Alumina 10×8×0.6mm.

ELECTRICAL CHARACTERISTICS (Ta=25℃)

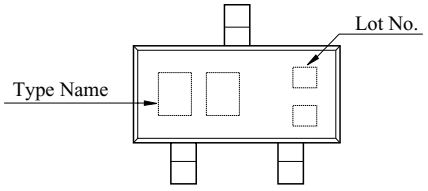
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BC859	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30	-	-	V
	BC860			-45	-	-	
Collector-Base Breakdown Voltage	BC859	$V_{(BR)CBO}$	I_C=-10 μA, I_E=0	-30	-	-	V
	BC860			-50	-	-	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=-10 μA, I_C=0	-5	-	-	V
Collector Cut-off Current		I_{CBO}	V_{CB}=-30V, I_E=0	-	-	-15	nA
DC Current Gain		h_{FE}	I_C=-2mA, V_{CE}=-5V	125	-	475	
Base-Emitter Voltage		$V_{BE(ON)}$ 1	I_C=-2mA, V_{CE}=-5V	-0.6	-0.65	-0.75	V
		$V_{BE(ON)}$ 2	I_C=-10mA, V_{CE}=-5V	-	-	-0.82	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$ 1	I_C=-10mA, I_B=-0.5mA	-	-0.075	-0.3	V
		$V_{CE(sat)}$ 2	I_C=-100mA, I_B=-5mA	-	-0.25	-0.65	
Base-Emitter Saturation Voltage		$V_{BE(sat)}$ 1	I_C=-10mA, I_B=-0.5mA	-	-0.7	-	V
		$V_{BE(sat)}$ 2	I_C=-100mA, I_B=-5mA	-	-0.85	-	
Transition Frequency		f_T	I_C=-10mA, V_{CE}=-5V, f=100MHz	-	150		MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	4.5	-	pF
Noise Figure		NF	I_C=-200 μA, V_{CE}=-5V Rg=10kΩ, f=1kHz	-	-	4.0	dB

Note : h_{FE} Classification A:125 250, B:220 475

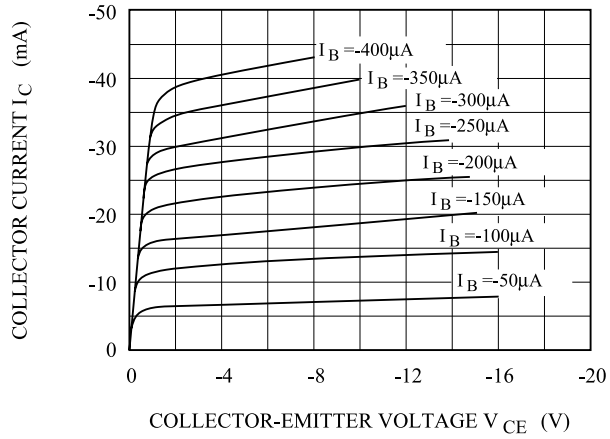
MARK SPEC

TYPE	BC859A	BC859B	BC860A	BC860B
MARK	4A	4B	4E	4G

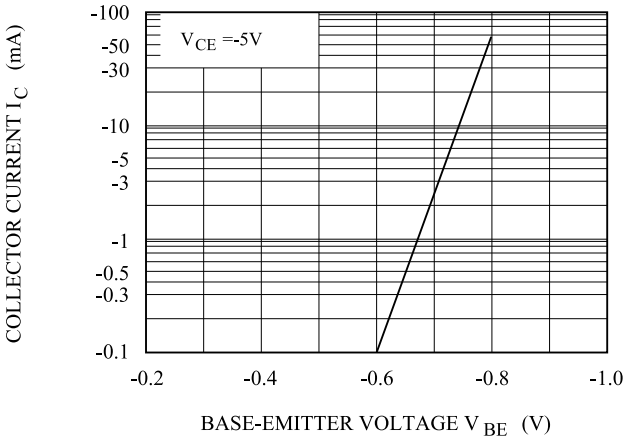
Marking



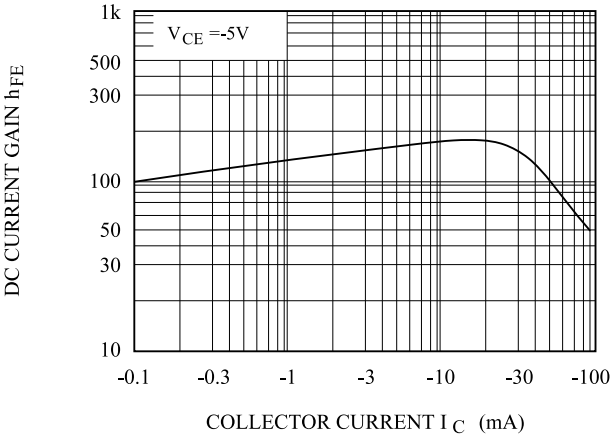
I_C - V_{CE}



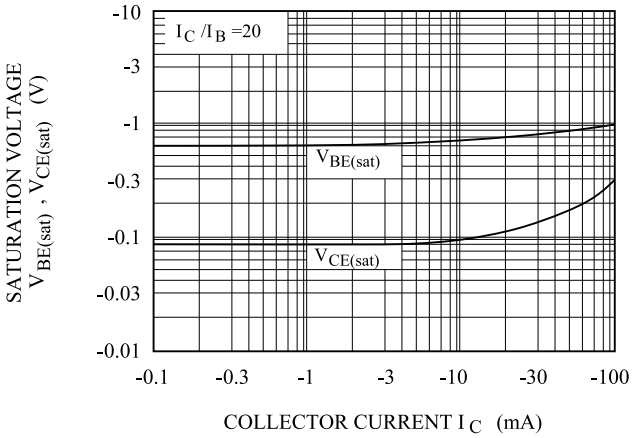
I_C - V_{BE}



h_{FE} - I_C



$V_{BE(sat)}$, $V_{CE(sat)}$ - I_C



C_{ob} - V_{CB}