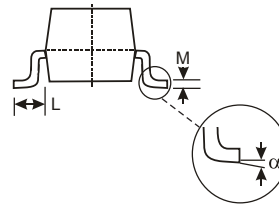
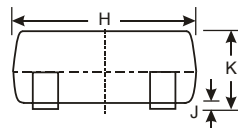
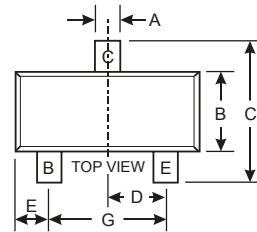
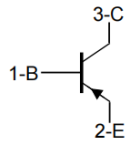
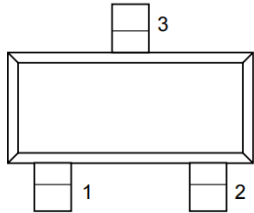


Features

- For AF input stages and driver applications
- High current gain
- Low collector-emitter saturation voltage



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

MARKING

TYPER	MARKING	TYPER	MARKING
BC856A	3A	BC858C	3L
BC856B	3B	BC859A	4A
BC856C	3C	BC859B	4B
BC857A	3E	BC859C	4C
BC857B	3F	BC860A	4E
BC857C	3G	BC860B	4F
BC858A	3J	BC860C	4G
BC858B	3K		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Collector Base Voltage	BC856	$-V_{CBO}$	80 V
	BC857, BC860	$-V_{CBO}$	50 V
	BC858, BC859	$-V_{CBO}$	30 V
Collector Emitter Voltage	BC856	$-V_{CEO}$	65 V
	BC857, BC860	$-V_{CEO}$	45 V
	BC858, BC859	$-V_{CEO}$	30 V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	200	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	Current Gain Group	A	110	220	-
		B	200	450	-
		C	420	800	-
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$		$-I_{CBO}$	-	15	nA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	BC856	$-V_{(BR)CBO}$	80	-	V
	BC857, BC860	$-V_{(BR)CBO}$	50	-	V
	BC858, BC859	$-V_{(BR)CBO}$	30	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	BC856	$-V_{(BR)CES}$	80	-	V
	BC857, BC860	$-V_{(BR)CES}$	50	-	V
	BC858, BC859	$-V_{(BR)CES}$	30	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	BC856	$-V_{(BR)CEO}$	65	-	V
	BC857, BC860	$-V_{(BR)CEO}$	45	-	V
	BC858, BC859	$-V_{(BR)CEO}$	30	-	V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ }\mu\text{A}$		$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$ at $-I_C = 100\text{ mA}$, $-I_B = 5\text{ mA}$		$-V_{CE(sat)}$	-	0.3	V
		$-V_{CE(sat)}$	-	0.65	V
Base Emitter On Voltage at $-I_C = 2\text{ mA}$, $-V_{CE} = 5\text{ V}$ at $-I_C = 10\text{ mA}$, $-V_{CE} = 5\text{ V}$		$-V_{BE(on)}$	0.6	0.75	V
		$-V_{BE(on)}$	-	0.82	V
Current Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 100\text{ MHz}$		f_T	100	-	MHz
Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$		C_{ob}	-	6	pF
Noise Figure at $-I_C = 200\text{ }\mu\text{A}$, $-V_{CE} = 5\text{ V}$, $R_G = 2\text{ K}\Omega$, $f = 1\text{ KHz}$ at $-I_C = 200\text{ }\mu\text{A}$, $-V_{CE} = 5\text{ V}$, $R_G = 2\text{ K}\Omega$, $f = 30 \sim 15\text{ KHz}$	BC856, BC857, BC858	NF	-	10	dB
	BC859, BC860		-	4	
	BC859		-	4	
	BC860		-	2	

TYPICAL TRANSIENT CHARACTERISTICS

