

Transistor(PNP)

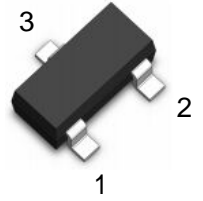
Features

- Complementary to LT846/LT847/LT848
- Power Dissipation of 200mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

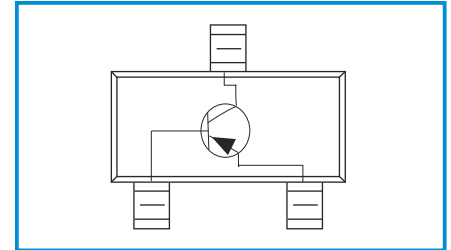
Mechanical Data

- Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

1. BASE
2. EMITTER
3. COLLECTOR



Functional Diagram



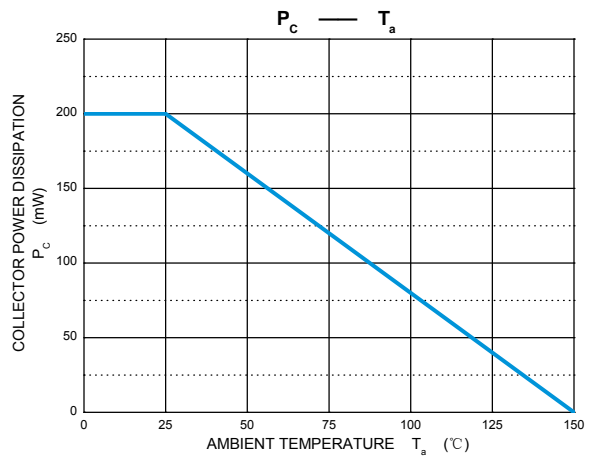
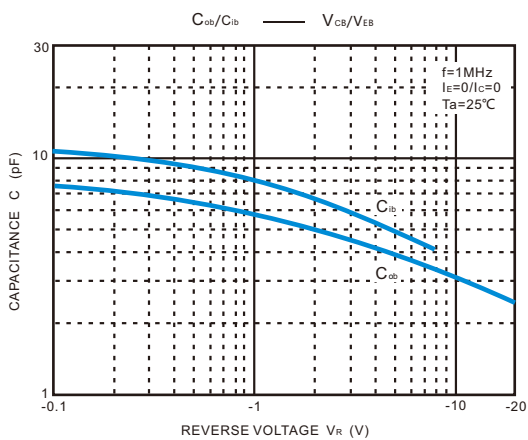
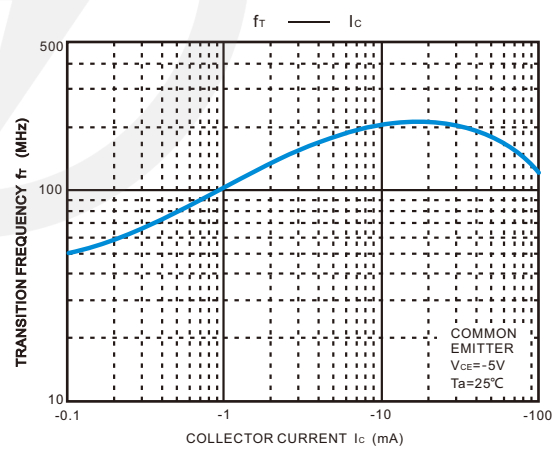
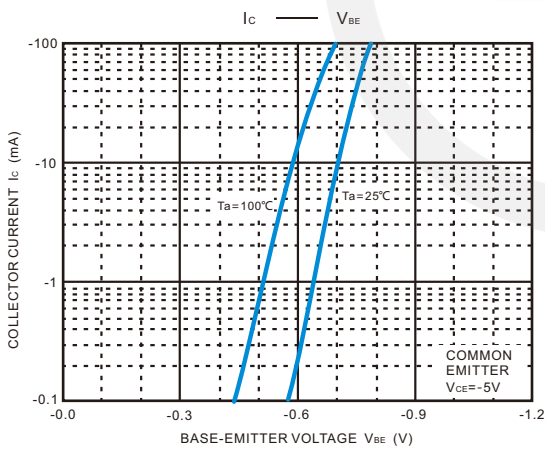
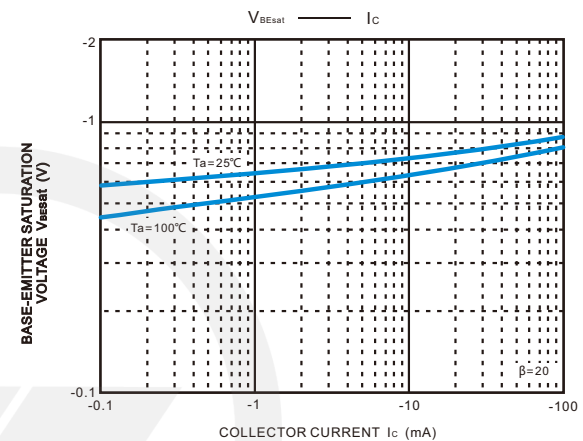
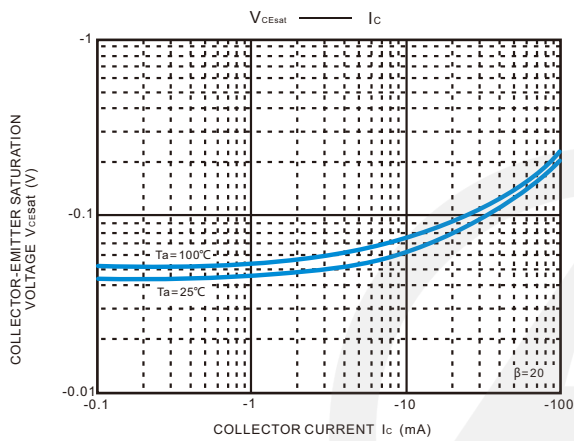
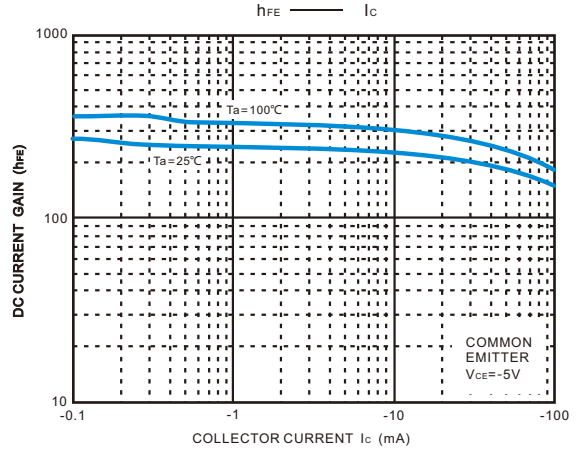
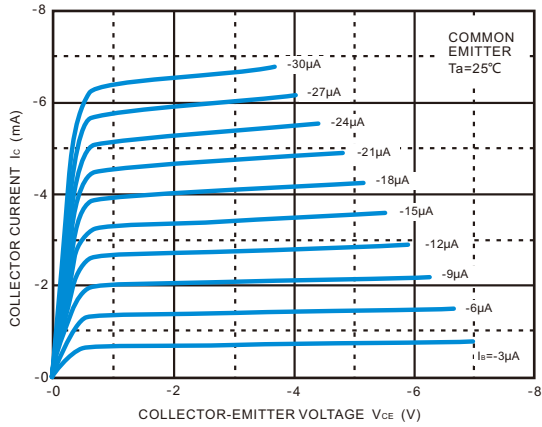
Maximum Ratings (Ta=25 unless otherwise noted)

Parameters	Symbol		Value	Unit
Collector-Base Voltage	V _{CB0}	LT856	-80	V
		LT857	-50	
		LT858	-30	
Collector-Emitter Voltage	V _{CEO}	LT856	-65	V
		LT857	-45	
		LT858	-30	
Emitter -Base Voltage	V _{EBO}		-6	V
Collector Current-Continuous	I _C		-100	mA
Collector Power Dissipation	P _C		200	mW
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}		625	°C/W

Electrical characteristics (Ta=25 unless otherwise specified)

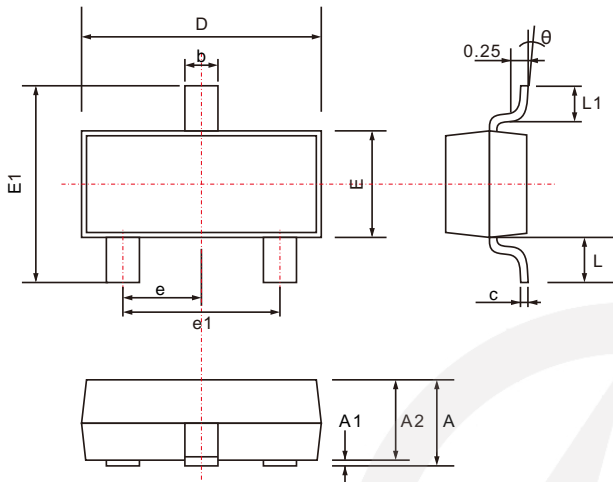
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10uA, I _E =0 LT856 LT857 LT858	-80 -50 -30		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0 LT856 LT857 LT858	-65 -45 -30		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10uA, I _C =0	-6		V
Collector cut-off current	I _{CBO}	V _{CB} =-70V, I _E =0 LT856 V _{CB} =-45V, I _E =0 LT857 V _{CB} =-25V, I _E =0 LT858		-100	nA
Collector cut-off current	I _{CEO}	V _{CE} =-60V, I _B =0 LT856 V _{CE} =-40V, I _B =0 LT857 V _{CE} =-25V, I _B =0 LT858		-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0		-100	nA
DC current gain	h _{FE}	V _{CE} =-5V, I _C =-2mA LT856A;LT857A;LT858A	125	250	
		LT856B;LT857B;LT858B	220	475	
		LT857C;LT858C	420	800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-100mA, I _B =-5mA		-0.50	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-100mA, I _B =-5mA		-1.10	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		4.5	pF

Typical Characteristics



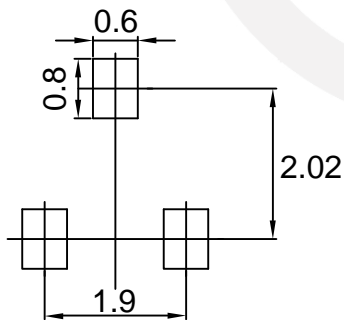
SOT-23 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.200
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.200
D	2.700	3.100
E	1.200	1.400
E1	2.200	3.000
e	0.950 TYP.	
e1	1.750	2.050
L	0.550 TYP.	
L1	0.300	0.500
θ	0°	8°

SOT-23 Suggested Pad Layout

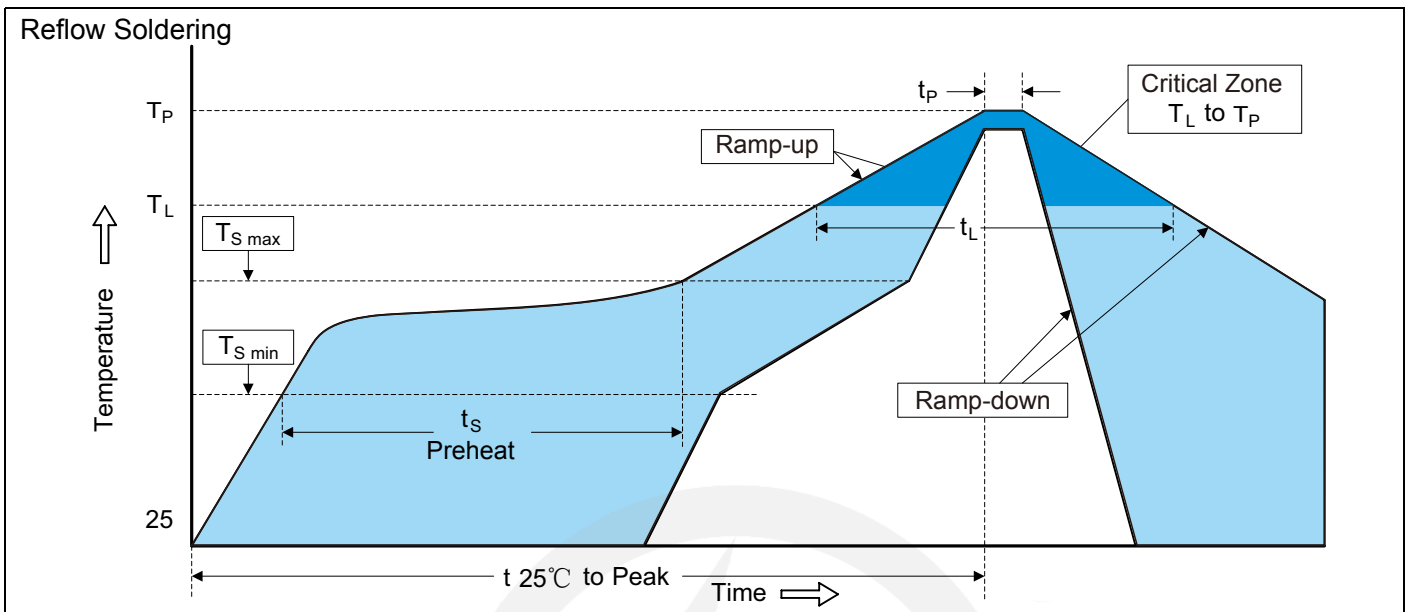


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

Marking

LT856A=3A	LT856B=3B	
LT857A=3E	LT857B=3F	LT857C=3G
LT858A=3J	LT858B=3K	LT858C=3L

Recommended Soldering Conditions

Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

7" Reel


D2	$\Phi 178.0 \pm 2.0$
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D3	$\Phi 50.0 \text{ Min.}$
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D4	$\Phi 13.0 \pm 0.5$
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W1	16.0 ± 2.0
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Quantity: 3000PCS	
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