

Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

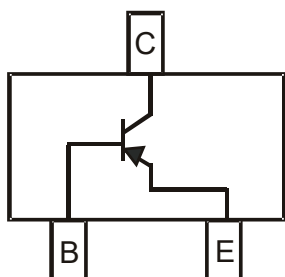
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Power Dissipation	P_D	300	mW

Thermal characteristics

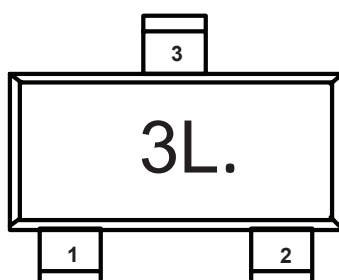
Parameter	Symbol	Rating	Unit
Operating Junction Temperature Range	T_{OPR}	-55~+150	°C
Storage Temperature Range	T_{STR}	-55~+150	°C
Thermal Resistance from Junction to Ambient	$R_{th(j-a)}$	417	°C/W

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure

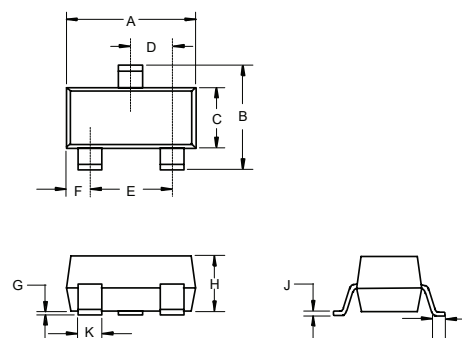


Marking Code



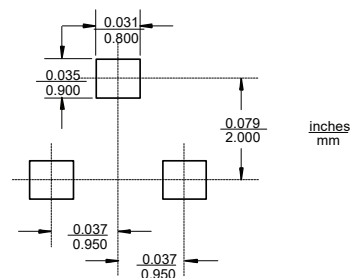
PNP Small Signal Transistor

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

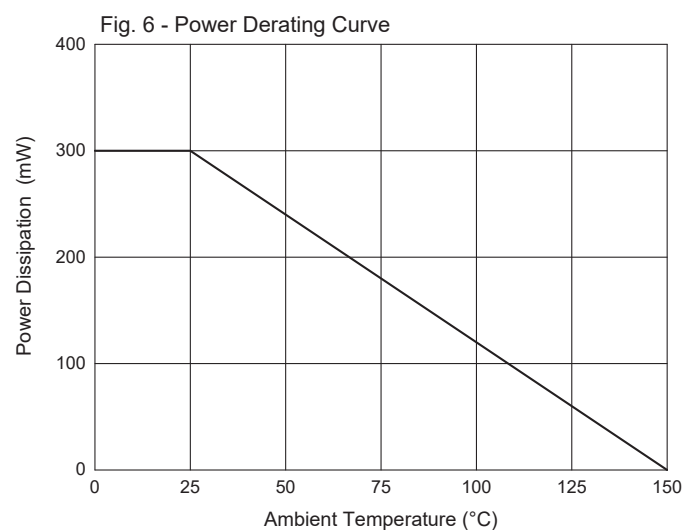
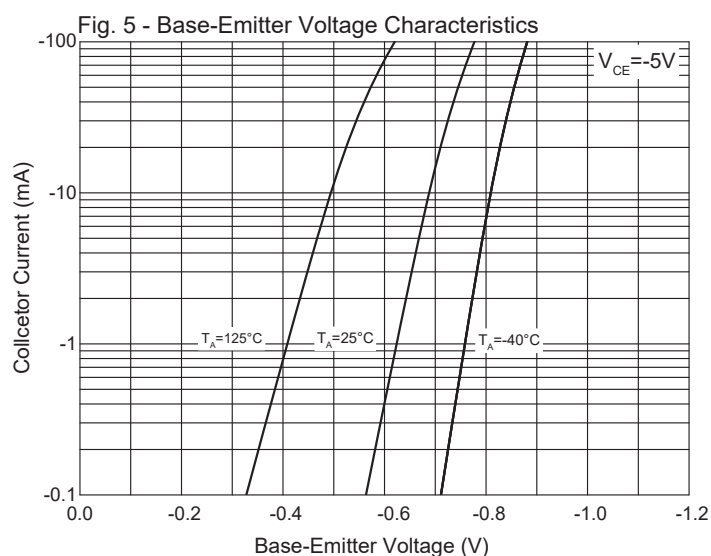
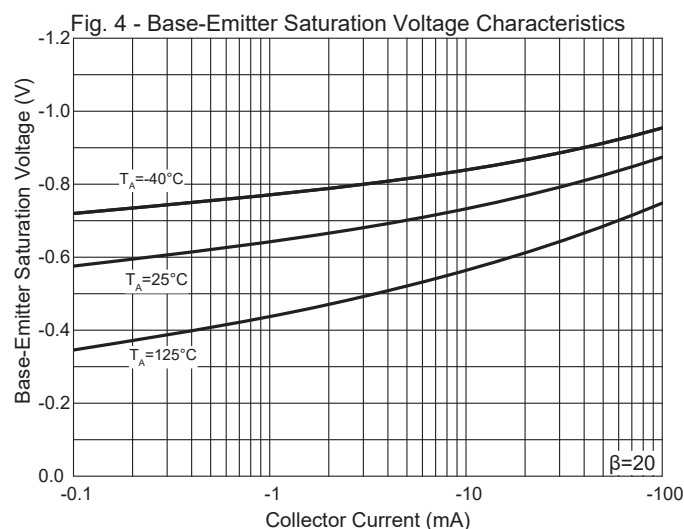
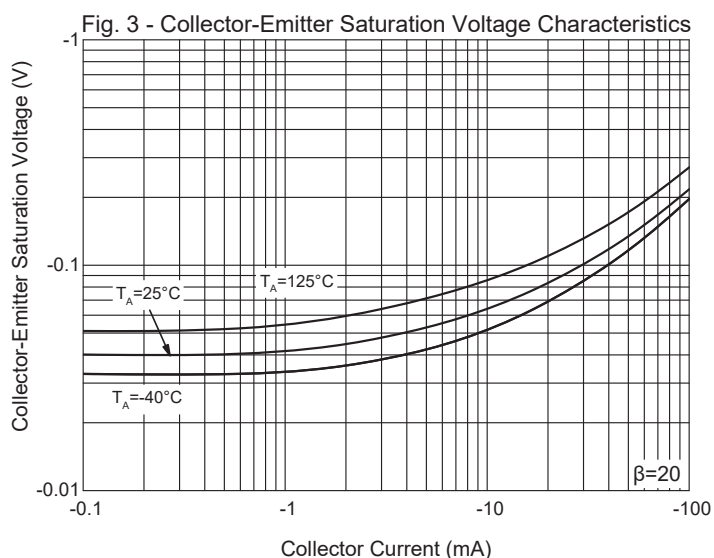
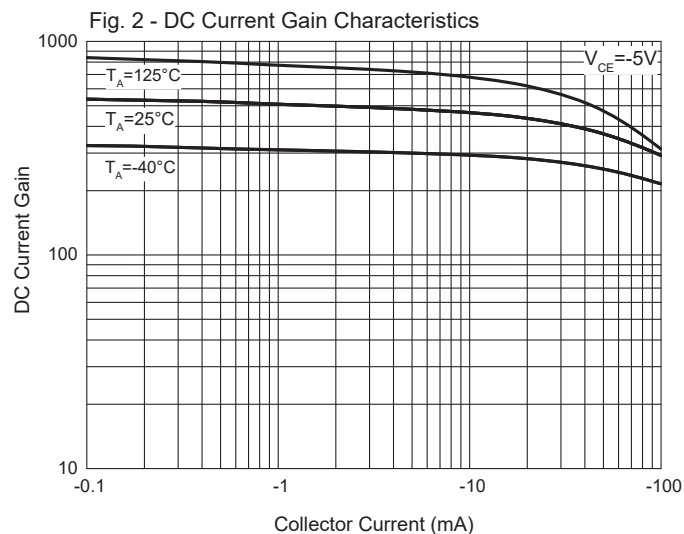
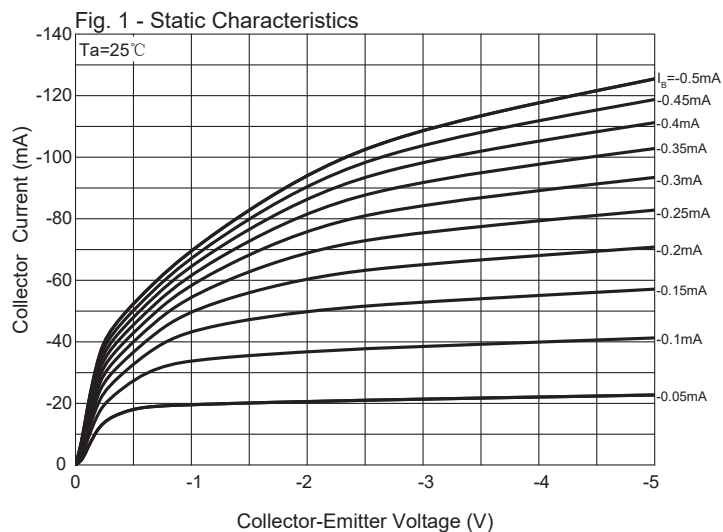
Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-30			V	$I_C = -10\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30			V	$I_C = -10mA, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -1\mu A, I_C = 0$
Collector-Base Cutoff Current	I_{CBO}			-100	nA	$V_{CB} = -30V, I_E = 0$
Collector-Emitter Cutoff Current	I_{CEO}			-100	nA	$V_{CE} = -30V, I_B = 0$
Emitter-Base Cutoff Current	I_{EBO}			-100	nA	$V_{EB} = -5V, I_C = 0$
DC Current Gain	h_{FE}	420		800		$V_{CE} = -5V, I_C = -2mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.65	V	$I_C = -100mA, I_B = -5mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.1	V	$I_C = -100mA, I_B = -5mA$
Transition Frequency	f_T	100			MHz	$V_{CE} = -5V, I_C = -10mA, f = 30MHz$
Collector Output Capacitance	C_{ob}			6.3	pF	$V_{CB} = -10V, f = 1MHz$

Curve Characteristics



Ordering Information

Device	Packing
BC858CHE3-TP	Tape&Reel: 3Kpcs/Reel

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