Features

- Halogen Free. “Green” Device (Note 1)
- 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)

PNP Plastic-Encapsulate Transistors

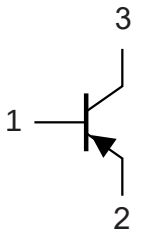
Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Maximum Thermal Resistance:833℃/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage BC856AL3-BC856BL3 BC857AL3-BC857CL3 BC858AL3-BC858CL3	V_{CBO}	 -80 -50 -30	V
Collector-Emitter Voltage BC856AL3-BC856BL3 BC857AL3-BC857CL3 BC858AL3-BC858CL3	V_{CEO}	 -65 -45 -30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Collector Power Dissipation	P_C	150	mW

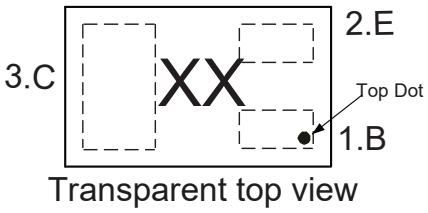
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds

Internal Structure



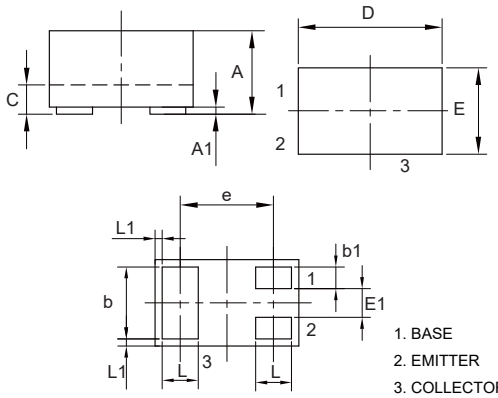
1.BASE
2.EMITTER
3.COLLECTOR

Marking Code



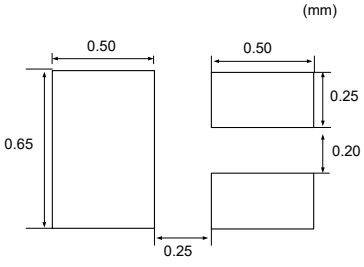
Part NO.	BC856AL3	BC856BL3	BC857AL3	BC857BL3	BC857CL3	BC858AL3	BC858BL3	BC858CL3
Marking code	3A	3B	3E	3F	3G	3J	3K	3L

DFN1006-3



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
A1	0.000	0.002	0.00	0.05	
b	0.018	0.022	0.45	0.55	
b1	0.004	0.008	0.10	0.20	
c	0.005	0.007	0.12	0.18	
D	0.037	0.042	0.95	1.075	
E	0.022	0.026	0.55	0.675	
E1	0.006	0.010	0.15	0.25	
e	0.026		0.65		TYP.
L	0.008	0.012	0.20	0.30	
L1	0.0002		0.05		TYP.

Suggested Solder Pad Layout



Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage						
BC856AL3-BC856BL3	$V_{(BR)CBO}$	-80			V	I_C=-10μA, I_E=0
BC857AL3-BC857CL3		-50				
BC858AL3-BC858CL3		-30				
Collector-Emitter Breakdown Voltage						
BC856AL3-BC856BL3	$V_{(BR)CEO}$	-65			V	I_C=-10mA, I_B=0
BC857AL3-BC857CL3		-45				
BC848AL3-BC848CL3		-30				
Emitter-Base Breakdown Voltage						
BC856AL3-BC856BL3	$V_{(BR)EBO}$	-5			V	I_E=-1μA, I_C=0
BC857AL3-BC857CL3		-5				
BC858AL3-BC858CL3		-5				
Collector Cut-off Current	I_{CBO}			-15	nA	V_{CB}=-30V, I_E=0
Emitter Cutoff Current	I_{EBO}			-100	nA	V_{EB}=-5V, I_C=0
Emitter Cutoff Current	I_{CEO}			-1	mA	V_{CE}=-30V, I_B=0
DC Current Gain						
BC856AL3/BC857AL3/BC858AL3	h_{FE}	110		220		V_{CE}=-5V, I_C=-2mA
BC856BL3/BC857BL3/BC858BL3		200		450		
BC857CL3/BC858CL3		420		800		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3	V	I_C=-10mA, I_B=-0.5mA
				-0.65		I_C=-100mA, I_B=-5mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.7		V	I_C=-10mA, I_B=-0.5mA
			-0.85			I_C=-100mA, I_B=-5mA
Base-Emitter On Voltage	$V_{BE(on)}$	-0.6	-0.65	-0.75	V	V_{CE}=-5V, I_C=-2mA
				-0.82		V_{CE}=-5V, I_C=-10mA
Transition Frequency	f_T	100			MHz	V_{CE}=-5V, I_C=-10mA, f=100MHz

Curve Characteristics

Fig. 1 - Static Characteristics

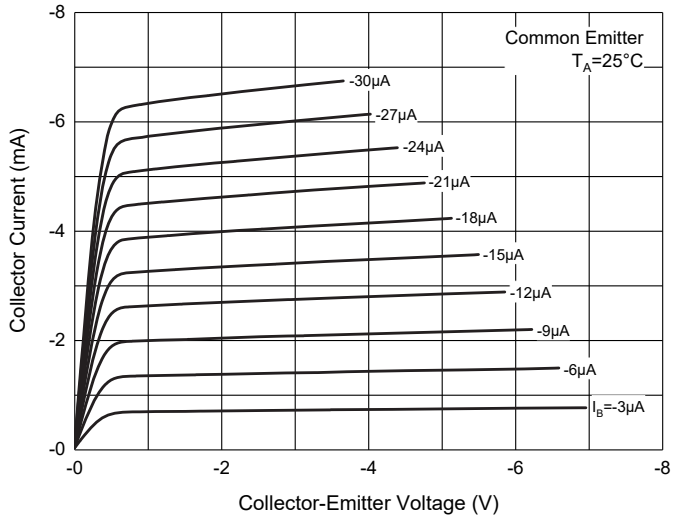


Fig. 2 - DC Current Gain Characteristics

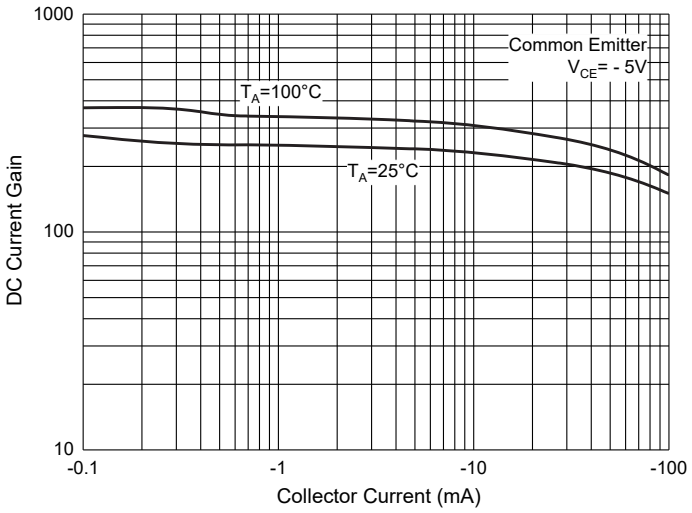


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

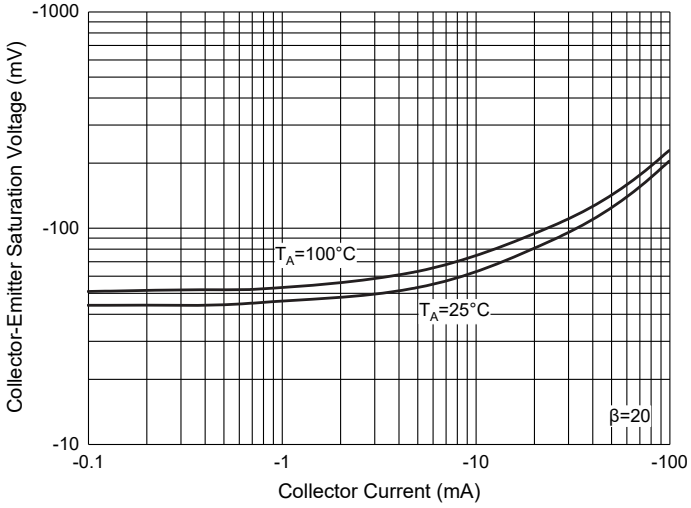


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

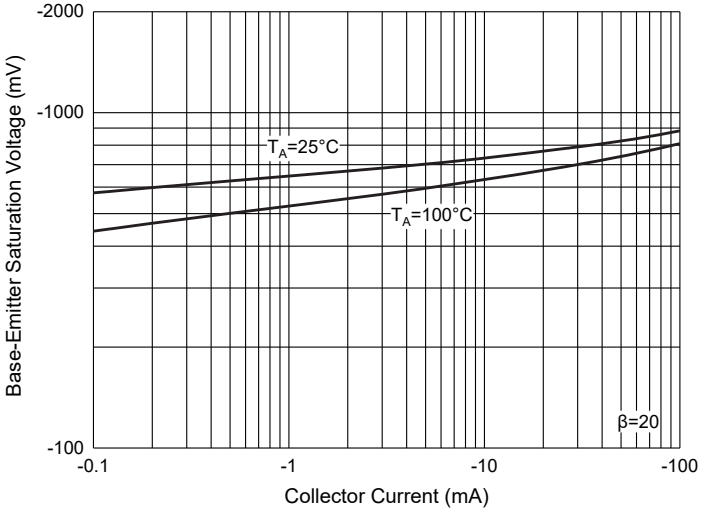


Fig. 5 - Base-Emitter Voltage Characteristics

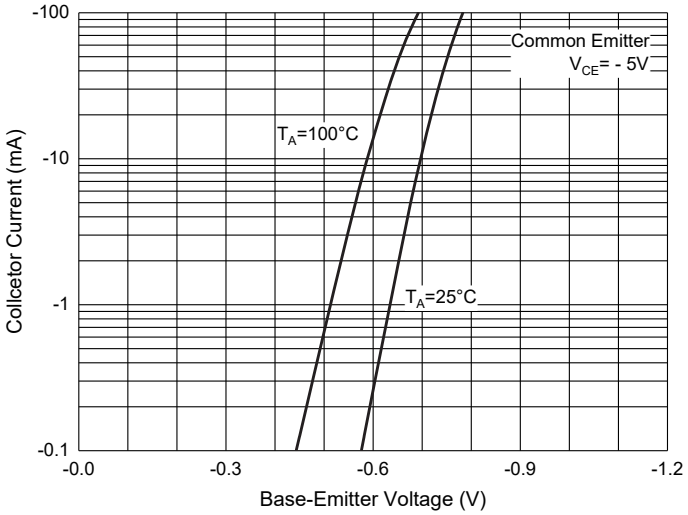
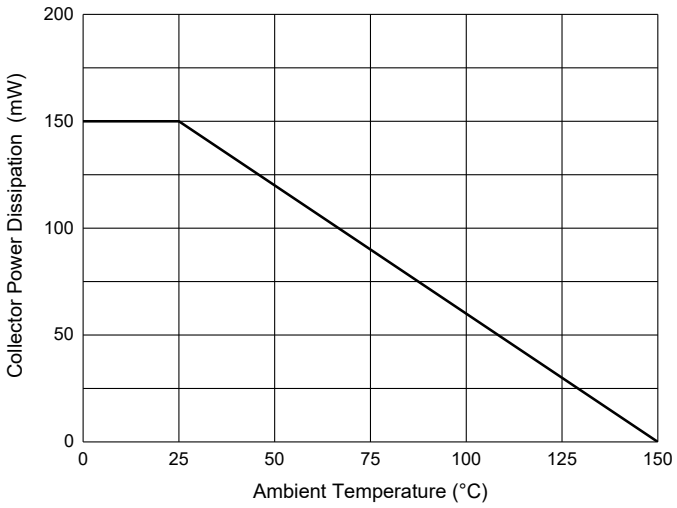


Fig. 6 - Collector Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel