

NPN General Purpose Transistor

BC847B / BC847C

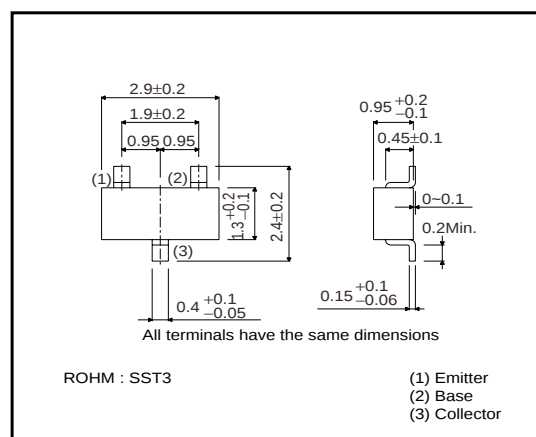
●Features

- 1) $BV_{CEO} < 45V$ ($I_C=1mA$)
- 2) Complements the BC857B.

●Package, marking, and Packaging specifications

Part No.	BC847B	BC847C
Packaging type	SST3	SST3
Marking	G1F	G1G
Code	T116	T116
Basic ordering unit (pieces)	3000	3000

●External dimensions (Units : mm)



●Absolute maximum ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	45	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	0.1	A
Collector power dissipation	P_C	0.2	W *
		0.35	
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55~+150	$^{\circ}C$

* When mounted on a 7×5×0.6mm ceramic board.

●Electrical characteristics ($T_a=25^{\circ}C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	—	—	V	$I_C=50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	45	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	BV_{EBO}	6	—	—	V	$I_E=50\mu A$
Collector cutoff current	I_{CBO}	—	—	15	nA	$V_{CB}=30V$
		—	—	5	μA	$V_{CB}=30V, T_a=150^{\circ}C$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.25	V	$I_C/I_B=10mA/0.5mA$
		—	—	0.6	V	$I_C/I_B=100mA/5mA$
Base-emitter saturation voltage	$V_{BE(on)}$	0.58	—	0.77	V	$V_{CE}/I_C=5V/10mA$
DC current transfer ratio	h_{FE}	200	—	450	—	$V_{CE}/I_C=5V/2mA$ BC847B
		420	—	800	—	$V_{CE}/I_C=5V/2mA$ BC847C
Transition frequency	f_T	—	200	—	MHz	$V_{CE}=5V, I_E=-20mA, f=100MHz$
Collector output capacitance	C_{ob}	—	3	—	pF	$V_{CB}=-10V, I_E=0, f=1MHz$
Emitter input capacitance	C_{ib}	—	8	—	pF	$V_{EB}=0.5V, I_C=0, f=1MHz$

●Electrical characteristic curves

The electrical characteristic curves for these products are the same as those of UMT222A, SST222A, MMST2222A and PN2222A.