

# NPN General Purpose Transistor

## BC847B / BC847C

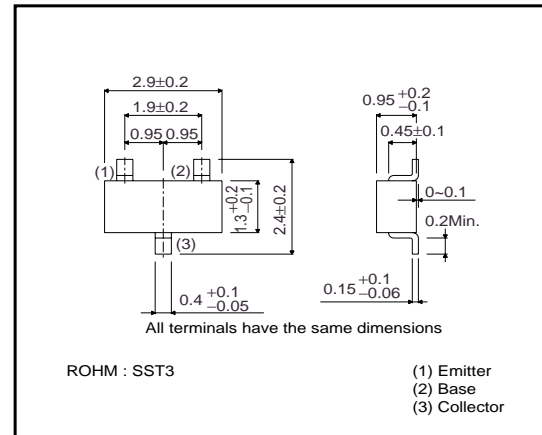
### ●Features

- 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	$\mu A$	$V_{CB}=30V, T_a=150^\circ C$
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	0.25	V	$I_C/I_B=10mA/0.5mA$
		–	–	0.6		$I_C/I_B=100mA/5mA$
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.