

NPN General Purpose Transistor

BC847B

●Features

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

●Package, marking, and packaging specifications

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

●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 0.35	W *
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55~+150	$^\circ C$

* When mounted on a $7 \times 5 \times 0.6$ mm ceramic board.

●Electrical characteristics

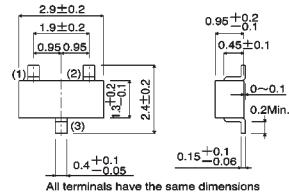
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	—	—	V	$I_c = 50 \mu A$
Collector-emitter breakdown voltage	BV_{CEO}	45	—	—	V	$I_c = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	6	—	—	V	$I_e = 50 \mu A$
Collector cutoff current	I_{CBO}	—	—	15	μA	$V_{cb} = 30V$ $V_{cb} = 30V, T_a = 150^\circ C$
—	—	—	—	5		
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	—	$V_{ce}/I_c = 5V/2mA$
Transition frequency	f_T	—	200	—	MHz	$V_{ce} = 5V, I_e = -20mA, f = 100MHz$
Collector output capacitance	C_{ob}	—	3	—	pF	$V_{cs} = -10V, I_e = 0, f = 1MHz$
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, MMST222A and PN2222A. Refer to pages 621 and 623.

●External dimensions (Units : mm)

BC847B



ROHM : SST3

(1) Emitter
(2) Base
(3) Collector