NPN General Purpose Transistor

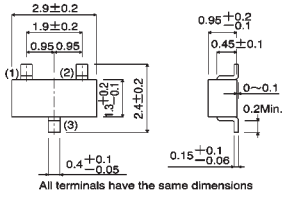
BC847B

●Features

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

●External dimensions (Units : mm)

BC847B



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

ROHM : SST3

●Package, marking, and packaging specifications

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

●Absolute maximum ratings (Ta=25℃)

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	W *
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~+150	℃

* When mounted on a 7x 5 x 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 μA
Collector-emitter breakdown voltage	BV_{CEO}	45	—	—	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	6	—	—	V	I_E=50 μA
Collector cutoff current	I_{CBO}	—	—	15	μA	V_{CB}=30V
		—	—	5	μA	V_{CB}=30V , Ta=150℃
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
Transition frequency	f_T	—	200	—	MHz	V_{CE}=5V , I_E=−20mA , f=100MHz
Collector output capacitance	Cob	—	3	—	pF	V_{CB}=−10V , I_E=0 , f=1MHz
Emitter input capacitance	Cib	—	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.
Refer to pages 621 and 623.

(SPEC-C22)