

SEBC847BU/SEBC847CU

NPN General Purpose Transistor

Revision:A

Features

- $BV_{CEO} < 45V$ ($I_C=1mA$)
- Complements the SEBC857BU.

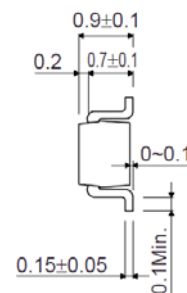
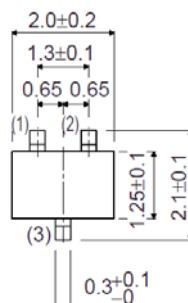
Applications

- Inverter, Interface, Driver

Construction

- NPN epitaxial planar silicon transistor

External dimensions (Units : mm)



(1) E
(2) B
(3) C

Absolute maximum ratings (Ta=25°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	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

Electrical characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Min..	Typ.	Max.	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C=50\mu A$	50	-		V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C=1mA$	45	-	-	V
Emitter-base breakdown voltage	BV_{EBO}	$I_C=50\mu A$	6			V
Collector cutoff current	I_{CBO}	$V_{CB}=30V$	-	-	15	nA
		$V_{CB}=30V, T_a=150^\circ C$			5	uA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B=10mA/0.5mA$	-	-	0.25	V
		$I_C/I_B=100mA/5mA$			0.6	V
DC current transfer ratio	h_{fe}	$V_{CE}/I_C=5V/2mA$ SEBC847BU	200	-	450	-
		$V_{CE}/I_C=5V/2mA$ SEBC847CU	420		800	
Base-emitter saturation voltage	$V_{BE(on)}$	$V_{CE}/I_C=5V/-20mA$	0.58		0.77	V

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Transition frequency	f_T	$V_{CB}=5, I_E=20mA,$ $f=100MHz$	-	200	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0,$ $f=1MHz$		3		pF
Emitter input capacitance	C_{ib}	$V_{EB}=0.5V, I_C=0,$ $f=1MHz$		8		pF

Electrical characteristic curves

The electrical characteristic curves for these products are the same as those of UMT222A, SST222A, MMST222A and PN222A.

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