RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

BC846B

SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)

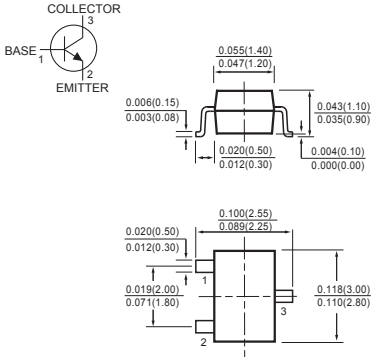
FEATURES

* Power dissipation
  P_{CM} : 0.225 W (Tamb=25°C) Note1
* Collector current
  I_{CM} : 0.1 A
* Collector-base voltage
  V_{CBO} : 80 V
* Operating and storage junction temperature range
  T_J,Tstg: -55°C to +150°C

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.008 gram

SOT-23



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

ELECTRICAL CHARACTERISTICS (@ T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN	MAX	UNITS
Collector - base breakdown voltage (I_C= 10μA, I_E=0)	V_{CBO}	80	-	V
Collector - emitter breakdown voltage (I_C= 10mA, I_B=0)	V_{CEO}	65	-	V
Emitter - base breakdown voltage (I_E= 10μA, I_C=0)	V_{EBO}	6	-	V
Collector cut - off current (V_{CB}= 70V, I_E=0)	I_{CBO}	-	0.1	μA
Collector cut - off current (V_{CE}= 60V, I_B=0)	I_{CEO}	-	0.1	μA
Emitter cut - off current (V_{EB}= 5V, I_C=0)	I_{EBO}	-	0.1	μA
DC current gain (V_{CE}= 5V, I_C= 2mA)	$h_{FE(1)}$	200	450	-
Collector - emitter saturation voltage (I_C= 100mA, I_B= 5mA)	$V_{CE(sat)}$	-	0.5	V
Base - emitter saturation voltage (I_C= 100mA, I_B= 5mA)	$V_{BE(sat)}$	-	1.1	V
Transition frequency (V_{CE}= 5V, I_C= 10mA, f= 100MHz)	f_T	100	-	MHz

DEVICE MARKING

BC846B	1B

Notes: 1. Transistor mounted on an FR4 Printed-circuit board.
2. “Fully ROHS compliant”, “100% Sn plating (Pb-free)”.

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