RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

C945

SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)

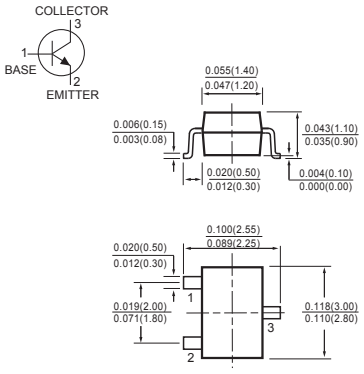
FEATURES

* Power dissipation
  P_{CM} : 0.2 W (Tamb=25°C)
* Collector current
  I_{CM} : 0.15 A
* Collector-base voltage
  $V_{(BR)CBO}$: 60 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	TYP	MAX	UNITS
Collector-base breakdown voltage(I_C= 1mA, I_E=0)	$V_{(BR)CBO}$	60	-	-	V
Collector-emitter breakdown voltage(I_C= 0.1mA, I_B=0)	$V_{(BR)CEO}$	50	-	-	V
Emitter-base breakdown voltage(I_C= 0.1mA, I_B=0)	$V_{(BR)EBO}$	5	-	-	V
Collector cut-off current(V_{CB}= 60V, I_E=0)	I_{CBO}	-	-	0.1	μA
Collector cut-off current(V_{CB}= 45V, I_E=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}= 6V, I_C= 1mA)	h_{FE}	130	-	400	-
DC current gain(V_{CE}= 6V, I_C= 0.1mA)		40	-	-	-
Collector-emitter saturation voltage(I_C=100 mA, I_B= 10mA)	$V_{CE(sat)}$	-	-	0.3	V
Base-emitter saturation voltage(I_C= 100 mA, I_B= 10mA)	$V_{BE(sat)}$	-	-	1	V
Base-emitter voltage(I_E= 310 mA)	V_{BEF}	-	-	1.4	V
Transition frequency(V_{CE}= 6V, I_C= 10mA, f= 30MHz)	f_T	150	-	-	MHz

CLASSIFICATION OF $h_{FE(1)}$

RANK	L	H
Range	130~200	200~400
Marking	CR	

Note : "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2007-3

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