RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

2SC3052

SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)

FEATURES

* Power dissipation
  P_{CM} : 0.15 W (Tamb=25°C)
* Collector current
  I_{CM} : 0.2 A
* Collector-base voltage
  $V_{(BR)CBO}$: 50 V
* Operating and storage junction temperature range
  T_J,Tstg: -55°C to +150°C

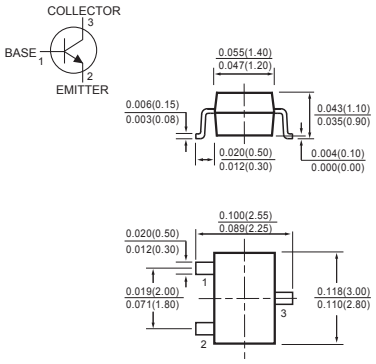
MECHANICAL DATA

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

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%.

SOT-23



Dimensions in inches and (millimeters)

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

CHARACTERISTICS	SYMBOL	MIN	MAX	UNITS
Collector-base breakdown voltage (I_C= 100μA, I_E=0)	$V_{(BR)CBO}$	50	-	V
Collector-emitter breakdown voltage (I_C= 100μA, I_B=0)	$V_{(BR)CEO}$	50	-	V
Emitter-base breakdown voltage (I_E= 100μA, I_C=0)	$V_{(BR)EBO}$	6	-	V
Collector cut-off current (V_{CB}= 50V, I_E=0)	I_{CBO}	-	0.1	μA
Emitter cut-off current (V_{EB}= 6V, I_C=0)	I_{EBO}	-	0.1	μA
DC current gain (V_{CE}= 6V, I_C= 1mA)	h_{FE}	150	800	-
DC current gain (V_{CE}= 6V, I_B= 0.1mA)		50	-	-
Collector-emitter saturation voltage (I_C= 100mA, I_B= 10mA)	$V_{CE(sat)}$	-	0.3	V
Base - emitter saturation voltage (I_C= 100mA, I_B= 10mA)	$V_{BE(sat)}$	-	1	V
Transition frequency (V_{CE}= 6V, I_C= 10mA)	f_T	180	-	MHz
Collector output capacitance (V_{CE}= 6V, I_E= 0, f= 1MHz)	Cob	-	4	pF
Noise figure (V_{CE}= 6V, I_E= -0.1mA, f= 1KHz, R_g=2KΩ)	NF	-	15	dB

CLASSIFICATION OF $h_{FE(1)}$

RANK	E	F	G
Range	150-300	250-500	400-800
Marking	LE	LF	LG

2006-3

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