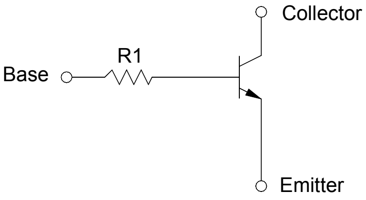
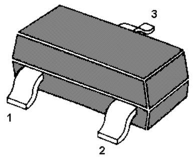
MMBTRC231S...MMBTRC234S

NPN Silicon Epitaxial Planar Transistor

For switching, audio muting, interface circuit and driver circuit applications





1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	15	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	600	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 5 V, I_C = 50 mA	h_{FE}	200	-	800	-
Collector Base Breakdown Voltage at I_C = 50 µA	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at I_C = 1 mA	$V_{(BR)CEO}$	15	-	-	V
Emitter Base Breakdown Voltage at I_E = 50 µA	$V_{(BR)EBO}$	5	-	-	V
Collector Base Cutoff Current at V_{CB} = 30 V	I_{CBO}	-	-	0.5	µA
Collector Emitter Saturation Voltage at I_C = 50 mA, I_B = 2.5 mA	$V_{CE(sat)}$	-	-	80	mV
Transition Frequency at V_{CE} = 10 V, -I_E = 50 mA, f = 100 MHz	f_T	-	200	-	MHz
Input Resistor MMBTRC231S MMBTRC233S MMBTRC234S	R1	-	2.2 10 4.7	-	KΩ

SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0506098

Dated : 07/07/2008