

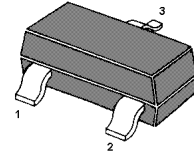
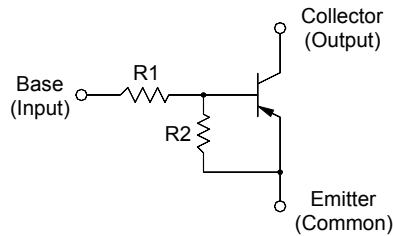
MMDT5P333

PNP Silicon Epitaxial Planar Transistor

for switching and interface circuit and drive circuit applications

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process



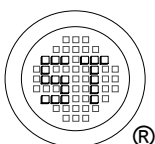
1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	V_{EBO}	- 20, 6	V
Collector Current	$-I_C$	500	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_S	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 50\text{ mA}$	h_{FE}	56	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	0.1	μA
Base Emitter Current at $-V_{BE} = 5\text{ V}$	$-I_{BE}$	-	-	2.4	mA
Collector Emitter Saturation Voltage at $-I_C = 50\text{ mA}$, $-I_B = 2.5\text{ mA}$	$-V_{CE(sat)}$	-	-	0.3	V
Input On Voltage at $-V_{CE} = 0.3\text{ V}$, $-I_C = 20\text{ mA}$	$-V_{I(on)}$	-	-	2	V
Input Off Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ }\mu\text{A}$	$-V_{I(off)}$	0.3	-	-	V
Input Resistor	R_1	2.31	3.3	4.29	K Ω
Input Resistor	R_2	7.5	10	12.5	K Ω
Resistance Ratio	R_2 / R_1	2.4	3	3.7	-
Transition Frequency at $V_{CE} = 10\text{ V}$, $-I_E = 5\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	200	-	MHz



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

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