

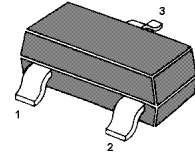
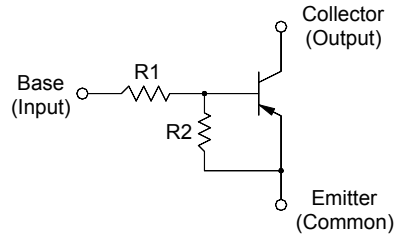
MMDT5P333

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
TO-236 Plastic Package

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

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

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

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

