

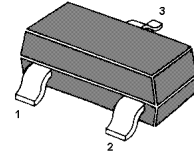
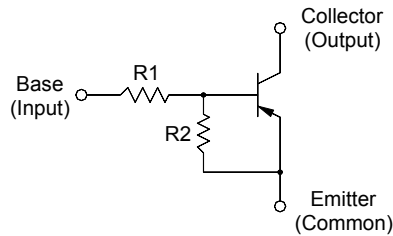
MMDT1P434

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



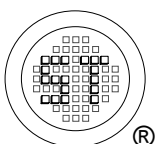
1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

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	$-V_{EBO}$	6	V
Collector Current	$-I_C$	100	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 $-V_{CE} = 5\text{ V}$, $-I_C = 5\text{ mA}$	h_{FE}	50	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	0.1	μA
Collector Emitter Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CEO}$	50	-	-	V
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$	$-V_{CE(sat)}$	-	-	0.3	V
Input On Voltage at $-V_{CE} = 0.2\text{ V}$, $-I_C = 5\text{ mA}$	$-V_{I(on)}$	-	-	1.7	V
Input Off Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ }\mu\text{A}$	$-V_{I(off)}$	0.5	-	-	V
Input Resistor	R_1	3.29	4.7	6.11	K Ω
Input Resistor	R_2	15.4	22	28.6	K Ω
Resistance Ratio	R_2 / R_1	3.6	4.5	5.5	-
Transition Frequency at $-V_{CE} = 10\text{ V}$, $I_E = 5\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	250	-	MHz



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 : 14/01/2008