

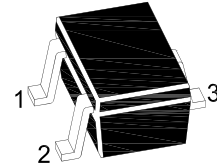
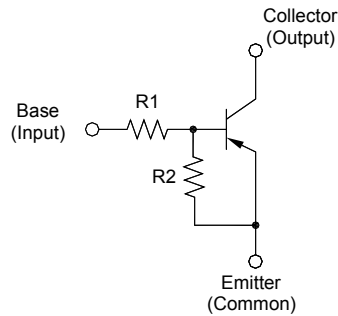
MMDTA136E

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



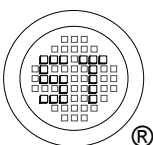
1.Base 2.Emitter 3.Collector
SOT-523 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector to Base Voltage	$-V_{CBO}$	50	V
Collector to Emitter Voltage	$-V_{CEO}$	50	V
Emitter to Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	200	mA
Collector Dissipation	P_C	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

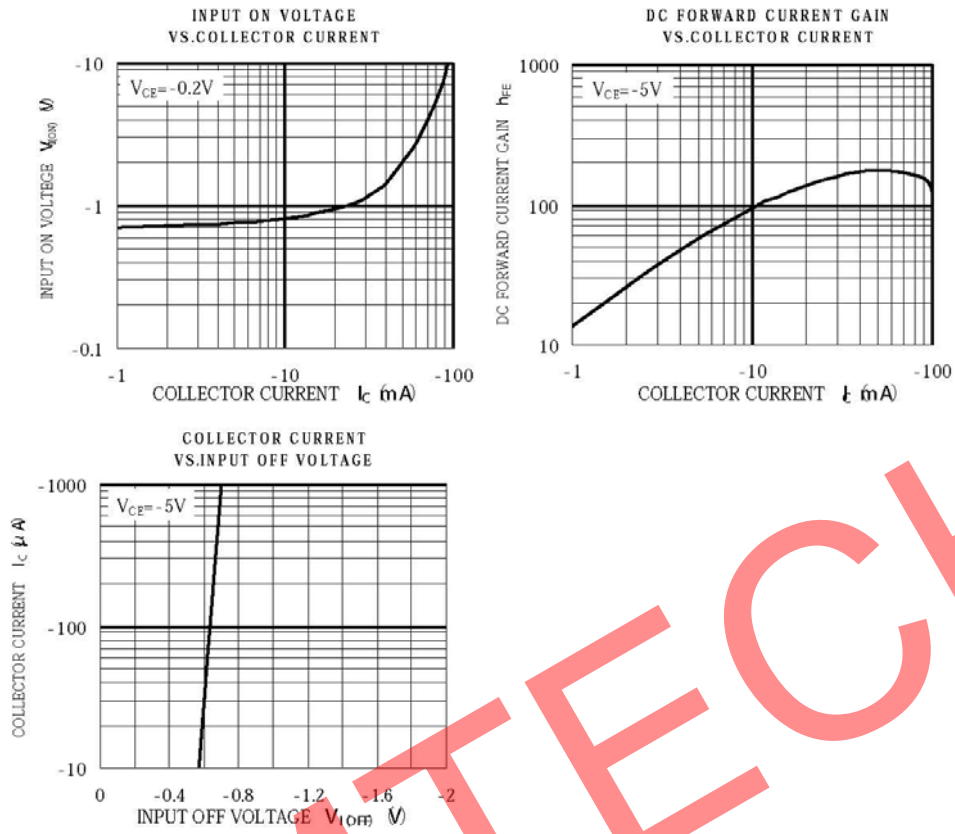
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC forward Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 5\text{ mA}$	h_{FE}	33	-	-	-
Collector Base Cut-off Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	100	nA
Collector Emitter Breakdown Voltage at $-I_C = 100\ \mu\text{A}$	$-V_{(BR)CEO}$	50	-	-	V
Collector to Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$	$-V_{CE(sat)}$	-	-	0.3	V
Input Voltage (ON) at $-V_{CE} = 0.2\text{ V}$, $-I_C = 5\text{ mA}$	$-V_{I(ON)}$	-	-	1.2	V
Input Voltage (OFF) at $-V_{CE} = 5\text{ V}$, $-I_C = 100\ \mu\text{A}$	$-V_{I(OFF)}$	0.4	-	-	V
Input Resistance	R_1	0.7	1	1.3	K Ω
Resistance Ratio	R_2 / R_1	8	10	12	-
Gain Band with Product at $-V_{CE} = 6\text{ V}$, $-I_E = 10\text{ mA}$	f_T	-	150	-	MHz



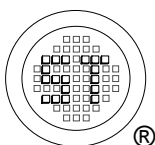
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