

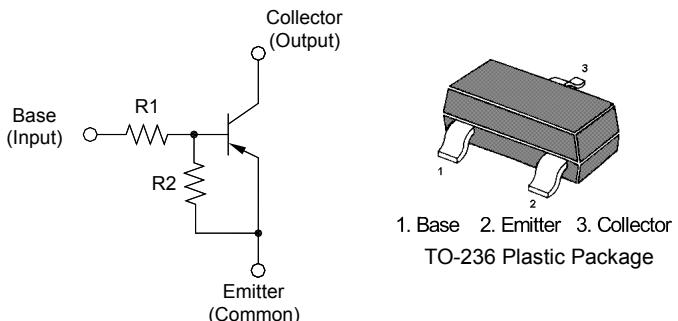
# MMDTA234

## PNP Silicon Epitaxial Planar Transistor

for high current switching, interface circuit and driver circuit application.

### Feature

- With built-in bias resistor
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High output current



### Resistance Values

Type	R1 (KΩ)	R2 (KΩ)
MMDTA234	2.2	10

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

Parameter	Symbol	Value	Unit
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	- 6 to + 12	V
Collector Current <sup>1)</sup>	$-I_C$	800	mA
Total Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{Stg}$	- 55 to + 150	$^\circ\text{C}$

<sup>1)</sup>  $t_p = 1\text{mS}$ .

### 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 $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	-	10	$\mu\text{A}$
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	3.6	mA
Collector Emitter Saturation Voltage at $I_C = 50\text{ mA}$ , $I_B = 2.5\text{ mA}$	$-V_{CEsat}$	-	-	0.3	V
Input Off Voltage at $-V_{CE} = 5\text{ V}$ , $-I_C = 0.1\text{ mA}$	$-V_{I(off)}$	0.3	-	-	V
Input On Voltage at $-V_{CE} = 0.3\text{ V}$ , $-I_C = 20\text{ mA}$	$-V_{I(on)}$	-	-	2	V
Transition Frequency at $-V_{CE} = 10\text{ V}$ , $-I_E = 5\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$ <sup>1)</sup>	-	200	-	MHz

<sup>1)</sup> Characteristic of transistor only.

