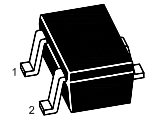
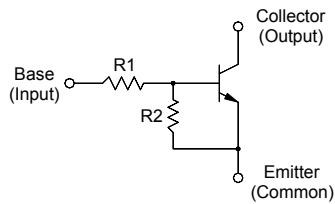


MMDTC234W

NPN Silicon Epitaxial Planar Digital Transistor

Resistance Values

R1 (K Ω)	R2 (K Ω)
2.2	10



1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Emitter Voltage	V_{CEO}	50	V
Input Voltage	V_I	- 5 to + 12	V
Collector Current	I_C	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$	h_{FE}	33	-	-	-
Collector Base Cutoff Current at $V_{CB} = 50\text{ V}$	I_{CBO}	-	-	0.5	μA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	3.8	mA
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 0.5\text{ mA}$	V_{CEsat}	-	-	0.3	V
Input Off Voltage at $V_{CE} = 5\text{ V}$, $I_C = 100\text{ }\mu\text{A}$	$V_{I(off)}$	0.3	-	-	V
Input On Voltage at $V_{CE} = 0.3\text{ V}$, $I_C = 20\text{ mA}$	$V_{I(on)}$	-	-	3	V
Input Resistance	R1	1.54	2.2	2.86	K Ω
Resistance Ratio	R2/R1	3.6	4.5	5.5	-
Transition Frequency ¹⁾ at $V_{CE} = 10\text{ V}$, $-I_E = 5\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	250	-	MHz

¹⁾ Characteristics of built-in transistor.

