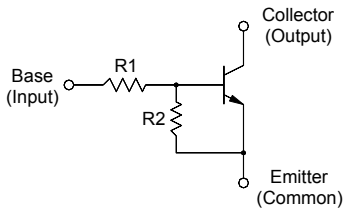
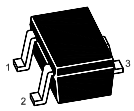
MMDTC123W

NPN Silicon Epitaxial Planar Digital Transistor

Resistance Values

R1 (KΩ)	R2 (KΩ)
2.2	47





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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	10	V
Input Voltage Positive Negative	V_I	+ 12 - 5	V
Collector Current	I_C	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 5 V, I_C = 10 mA	h_{FE}	100	-	-	-
Collector Base Cutoff Current at V_{CB} = 50 V	I_{CBO}	-	-	100	nA
Collector Emitter Cutoff Current at V_{CE} = 30 V	I_{CEO}	-	-	1	µA
Emitter Base Cutoff Current at V_{EB} = 5 V	I_{EBO}	-	-	180	µA
Collector Emitter Saturation Voltage at I_C = 5 mA, I_B = 0.25 mA	V_{CEsat}	-	-	0.1	V
Input Off Voltage at V_{CE} = 5 V, I_C = 100 µA	$V_{I(off)}$	0.5	-	-	V
Input On Voltage at V_{CE} = 0.3 V, I_C = 5 mA	$V_{I(on)}$	-	-	1.1	V
Input Resistance	R1	1.54	2.2	2.86	KΩ
Resistance Ratio	R2/R1	17	21	26	-