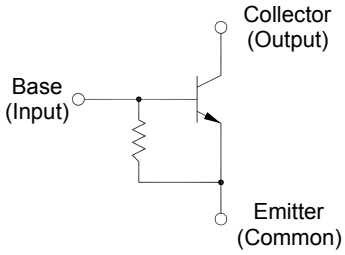
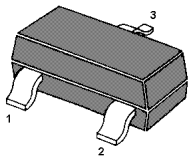
MMDTC114G

NPN Silicon Epitaxial Planar Digital Transistor

for switching and interface circuit and drive circuit applications





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

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

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}	5	V
Collector Current	I_C	100	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 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 = 5 mA	h_{FE}	30	-	-	-
Collector Base Cutoff Current at V_{CB} = 50 V	I_{CBO}	-	-	0.5	µA
Emitter Base Cutoff Current at V_{EB} = 5 V	I_{EBO}	-	-	658	µA
Collector Base Breakdown Voltage at I_C = 50 µA	$V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at I_C = 1 mA	$V_{(BR)CEO}$	50	-	-	V
Emitter Base Breakdown Voltage at I_E = 720 µA	$V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at I_C = 10 mA, I_B = 0.5 mA	$V_{CE(sat)}$	-	-	0.3	V
Emitter Base Resistance	R	7	10	13	KΩ
Transition Frequency at V_{CE} = 10 V, $-I_E$ = 5 mA, f = 100 MHz	f_T	-	250	-	MHz