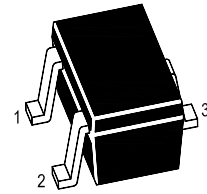
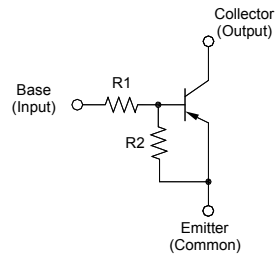


# MMDTA114W

## PNP Silicon Epitaxial Planar Transistor

### Features

- Built-In Biasing Resistors,  $R_1 \neq R_2$



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

### Resistor Value

$R_1$ (K $\Omega$ )	10
$R_2$ (K $\Omega$ )	4.7

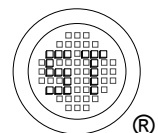
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Emitter Base Voltage	$-V_{EBO}$	- 10 to + 30	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	100	mA
Power Dissipation	$P_{tot}$	200	mW
Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating Junction Temperature	$T_j$	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

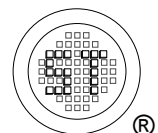
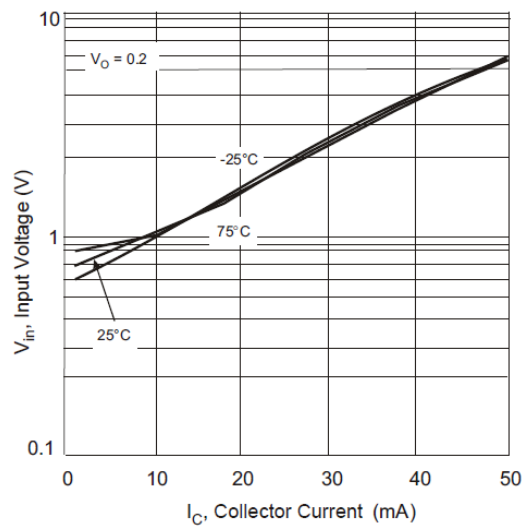
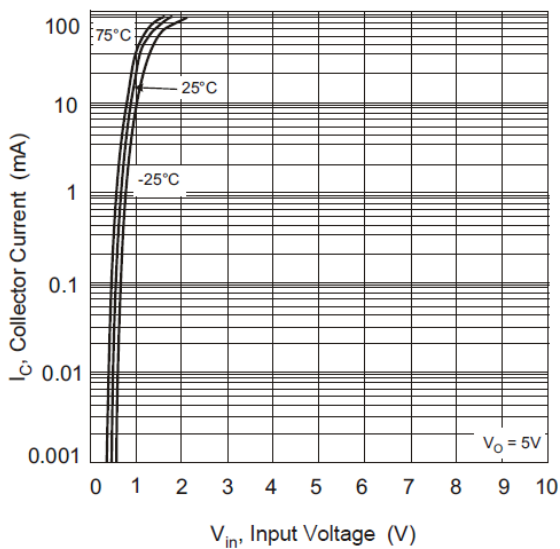
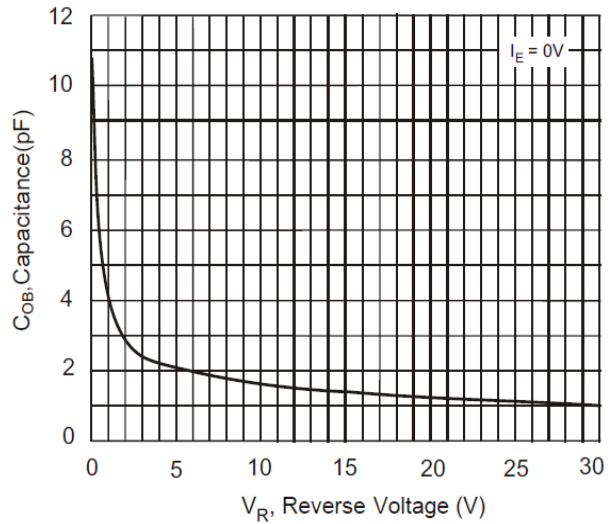
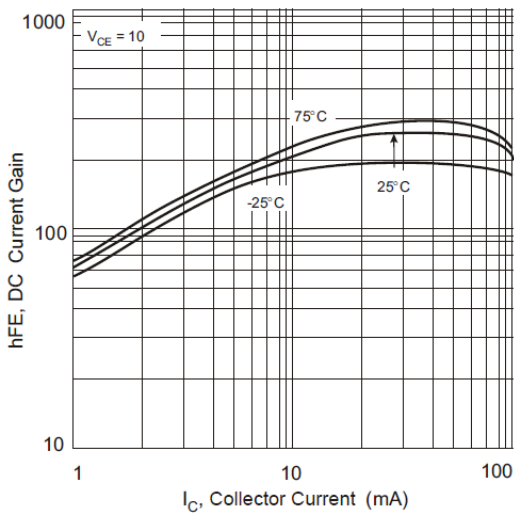
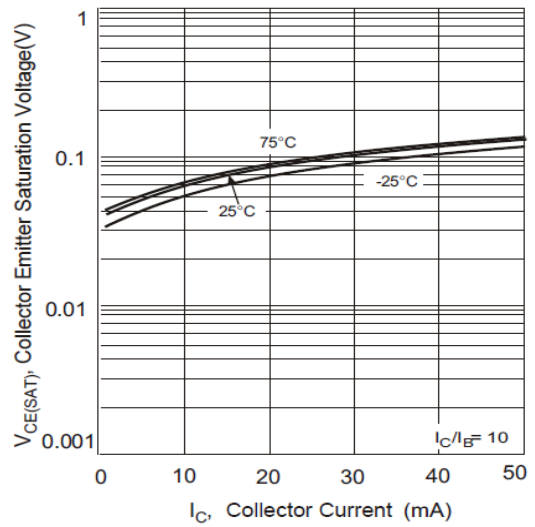
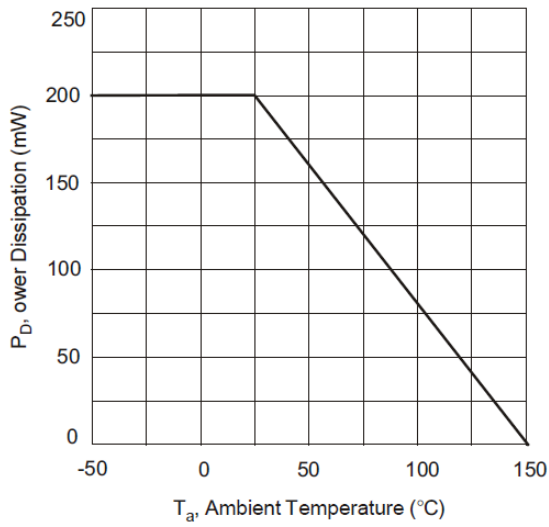
<sup>1)</sup> Mounted on FR4 PC Board with recommended pad .

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$	$h_{FE}$	24	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	0.5	$\mu\text{A}$
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	880	$\mu\text{A}$
Collector Emitter Saturation Voltage at $-I_C = 50\text{ mA}$ , $-I_B = 2.5\text{ mA}$	$-V_{CE(sat)}$	-	-	0.3	V
Input on Voltage at $-V_{CE} = 0.3\text{ V}$ , $-I_C = 2\text{ mA}$	$-V_{I(on)}$	-	-	3	V
Input off Voltage at $-V_{CE} = 5\text{ V}$ , $-I_C = 100\text{ }\mu\text{A}$	$-V_{I(off)}$	0.8	-	-	V
Transition frequency at $-V_{CE} = 10\text{ V}$ , $I_E = 5\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	-	250	-	MHz
Input Resistance	$R_1$	- 30	-	+ 30	%
Resistance Ratio	$R_2 / R_1$	- 20	-	+ 20	%



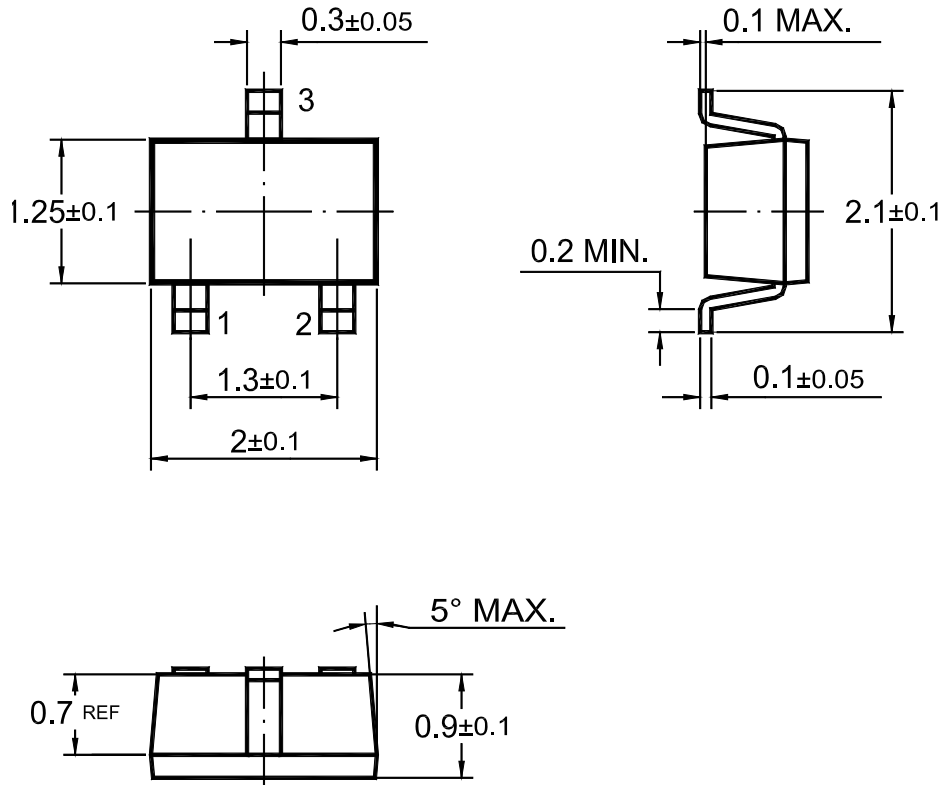
# MMDTA114W



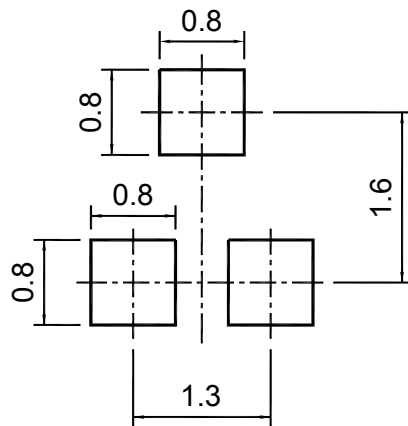
# MMDTA114W

## PACKAGE OUTLINE(Dimensions in mm)

SOT-323



## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	8	$4 \pm 0.1$	$0.157 \pm 0.004$	178	7	3,000

