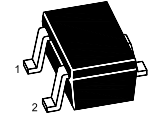
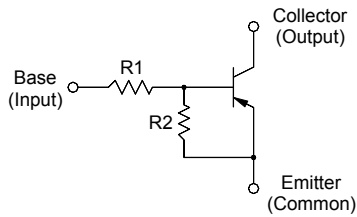


# MMDTA124W

## PNP Silicon Epitaxial Planar Digital Transistor



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

### Resistance Values

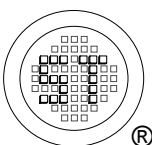
Type	R1 (KΩ)	R2 (KΩ)
MMDTA124W	22	22

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

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	$V_I$	- 40 to + 10	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	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$ , $-I_C = 5\text{ mA}$	$h_{FE}$	60	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	100	nA
Collector Emitter Cutoff Current at $-V_{CE} = 30\text{ V}$	$-I_{CEO}$	-	-	1	$\mu\text{A}$
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	180	$\mu\text{A}$
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$ , $-I_B = 0.5\text{ mA}$	$-V_{CEsat}$	-	-	0.15	V
Input Off Voltage at $-V_{CE} = 5\text{ V}$ , $-I_C = 100\text{ }\mu\text{A}$	$-V_{I(off)}$	0.8	-	-	V
Input On Voltage at $-V_{CE} = 0.3\text{ V}$ , $-I_C = 5\text{ mA}$	$-V_{I(on)}$	-	-	2.5	V
Input Resistance	R1	15.4	22	28.6	KΩ
Resistance Ratio	R2/R1	0.8	1	1.2	-



**SEMTECH ELECTRONICS LTD.**  
Subsidiary of Sino-Tech International (BVI) Limited



Dated : 04/11/2009