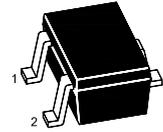
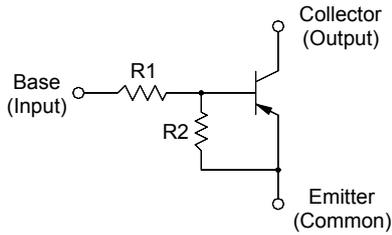


# MMDTA124W

## PNP Silicon Epitaxial Planar Digital Transistor



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

### Resistance Values

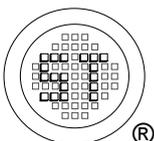
Type	R1 (KΩ)	R2 (KΩ)
MMDTA124W	22	22

### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	-V <sub>CB0</sub>	50	V
Collector Emitter Voltage	-V <sub>CEO</sub>	50	V
Emitter Base Voltage	-V <sub>EBO</sub>	10	V
Input Voltage	V <sub>I</sub>	- 40 to + 10	V
Collector Current	-I <sub>C</sub>	100	mA
Total Power Dissipation	P <sub>tot</sub>	200	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>s</sub>	- 65 to + 150	°C

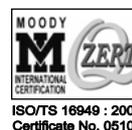
### Characteristics at T<sub>a</sub> = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at -V <sub>CE</sub> = 5 V, -I <sub>C</sub> = 5 mA	h <sub>FE</sub>	60	-	-	-
Collector Base Cutoff Current at -V <sub>CB</sub> = 50 V	-I <sub>CB0</sub>	-	-	100	nA
Collector Emitter Cutoff Current at -V <sub>CE</sub> = 30 V	-I <sub>CEO</sub>	-	-	1	μA
Emitter Base Cutoff Current at -V <sub>EB</sub> = 5 V	-I <sub>EBO</sub>	-	-	180	μA
Collector Emitter Saturation Voltage at -I <sub>C</sub> = 10 mA, -I <sub>B</sub> = 0.5 mA	-V <sub>CEsat</sub>	-	-	0.15	V
Input Off Voltage at -V <sub>CE</sub> = 5 V, -I <sub>C</sub> = 100 μA	-V <sub>I(off)</sub>	-	-	0.8	V
Input On Voltage at -V <sub>CE</sub> = 0.3 V, -I <sub>C</sub> = 5 mA	-V <sub>I(on)</sub>	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 Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103

ISO 14001:2004  
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ISO 9001:2000  
Certificate No. 0506098