

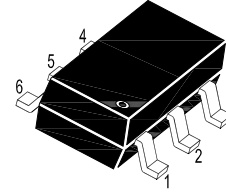
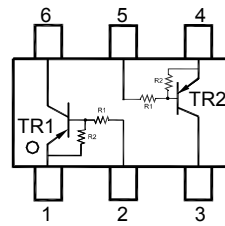
MMDTA144DW-HAF

PNP Silicon Epitaxial Planar Digital Transistor

for switching and interface circuit and drivecircuit applications

Features

- Built-in bias resistors R1 and R2
- Simplification of circuit design
- Reduces number of components and board space
- Halogen and Antimony Free(HAF), RoHS compliant



1. Emitter 2. Base 3. Collector
4. Emitter 5. Base 6. Collector
SOT-363 Plastic Package

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Supply Voltage	$-V_{CC}$	50	V
Input Voltage	V_{IN}	- 40 to + 6	V
Peak Collector Current	$-I_{CM}$	70	mA
Collector Current	$-I_C$	100	mA
Total Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

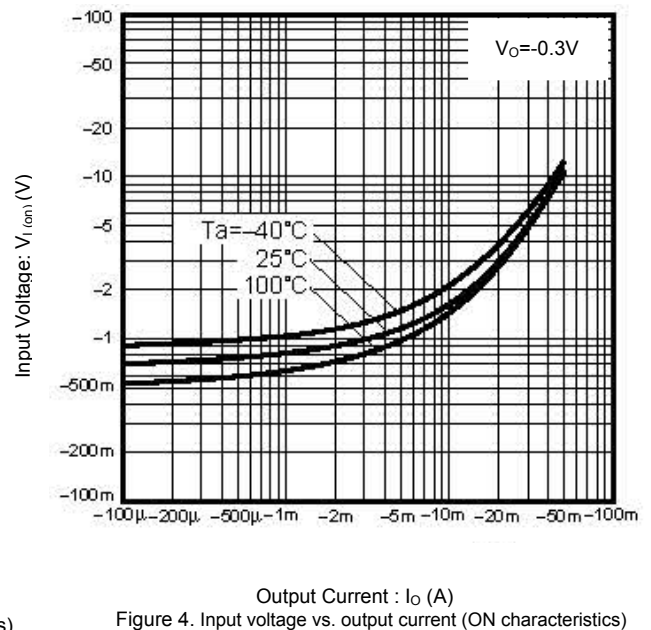
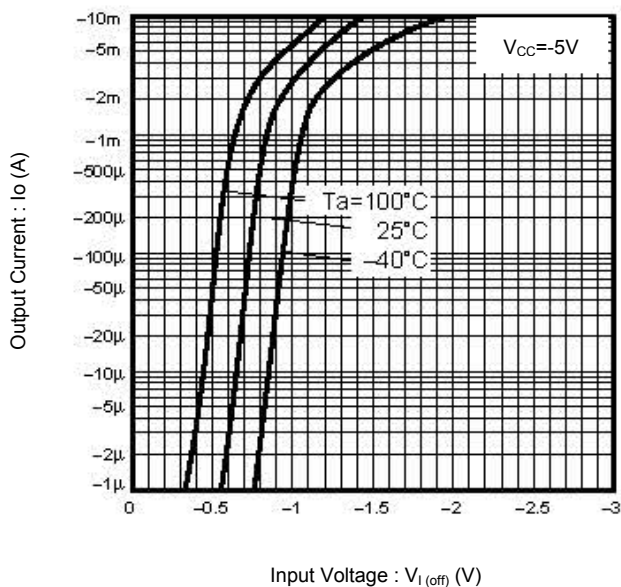
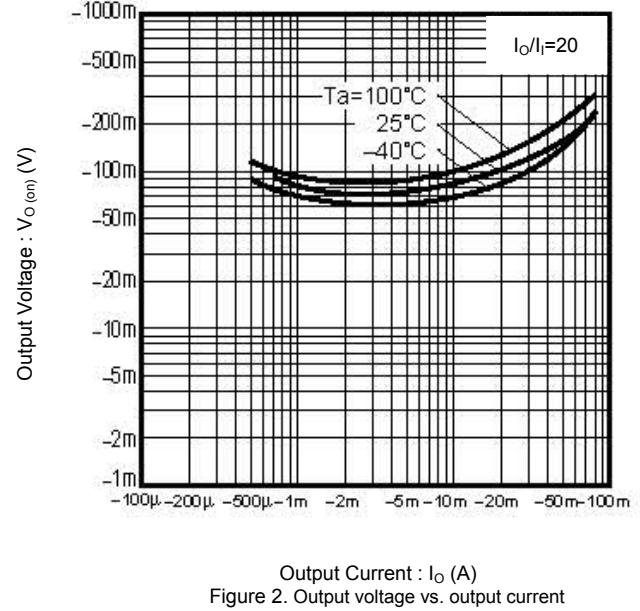
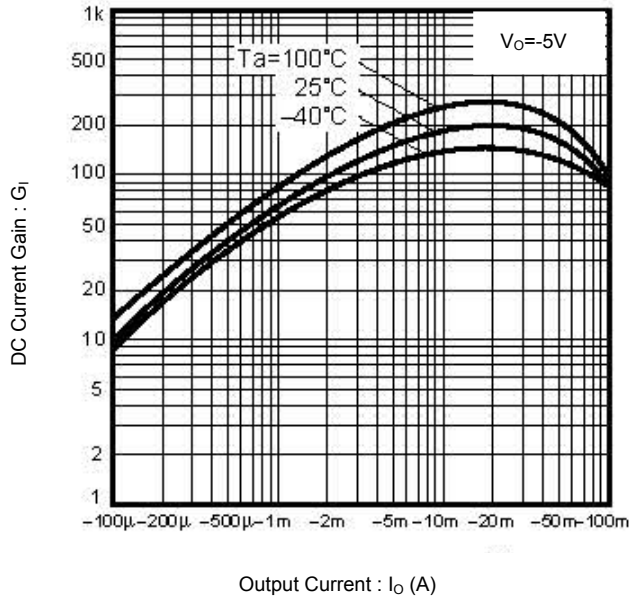
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 5\text{ mA}$	h_{FE}	68	-	-	-
Input Current at $-V_{EB} = 5\text{ V}$	$-I_{EB}$	-	-	0.88	mA
Output Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	0.5	μA
Input Voltage (OFF) at $-V_{CC} = 5\text{ V}$, $-I_C = 100\text{ }\mu\text{A}$	$-V_{I(OFF)}$	-	-	0.3	V
Input Voltage (ON) at $-V_O = 0.3\text{ V}$, $-I_O = 1\text{ mA}$	$-V_{I(ON)}$	1.4	-	-	V
Output Voltage (ON) at $-I_O = 5\text{ mA}$, $-I_I = 0.25\text{ mA}$	$-V_{O(ON)}$	-	-	0.3	V
Gain Bandwidth Product at $-V_{CE} = 10\text{ mA}$, $I_E = 5\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	250	-	MHz
Input Resistance	R_1	7	10	13	K Ω
Resistance Ratio	R_1/R_2	3.7	4.7	5.7	-

TOP DYNAMIC



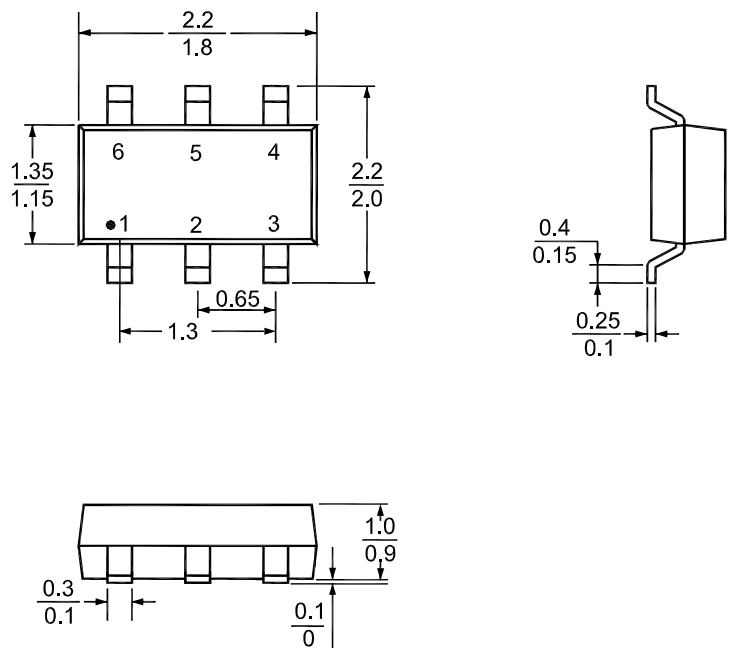
Dated: 08/09/2016 Rev: 01



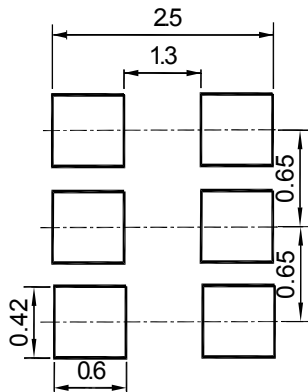
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Package Outline Dimensions (Units: mm)

SOT-363



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-363	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

TOP DYNAMIC

