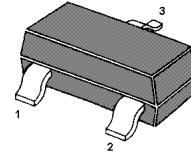
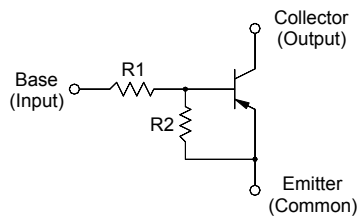


MMDTA143X

PNP Silicon Epitaxial Planar Digital Transistor

for switching and interface circuit and drive circuit applications



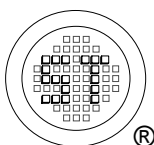
1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Supply Voltage	$-V_{CC}$	50	V
Input Voltage	V_I	- 20 to + 7	V
Output Current	$-I_O$	100	mA
Total Power Dissipation	P_{tot}	200	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 $-V_O = 5\text{ V}$, $-I_O = 10\text{ mA}$	h_{FE}	30	-	-	-
Output Current at $-V_{CC} = 50\text{ V}$	$-I_{O(off)}$	-	-	0.5	μA
Input Current at $-V_I = 5\text{ V}$	$-I_I$	-	-	1.8	mA
Input Off Voltage at $-V_{CC} = 5\text{ V}$, $-I_O = 100\ \mu\text{A}$	$-V_{I(off)}$	0.3	-	-	V
Input On Voltage at $-V_O = 0.3\text{ V}$, $-I_O = 20\text{ mA}$	$-V_{I(on)}$	-	-	2.5	V
Output Voltage at $-I_O = 10\text{ mA}$, $-I_I = 0.5\text{ mA}$	$-V_{O(on)}$	-	-	0.3	V
Input Resistance	R1	3.29	4.7	6.11	K Ω
Resistance Ratio	R2/R1	1.7	2.1	2.6	-
Transition Frequency at $-V_{CE} = 10\text{ V}$, $I_E = 5\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	250	-	MHz



SEMTECH ELECTRONICS LTD.
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