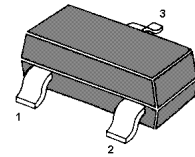
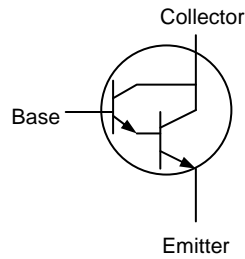


MMBTA28-HAF

NPN Silicon Darlington Transistor

Features

- Halogen and Antimony Free(HAF),
RoHS compliant



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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CES}	80	V
Emitter Base Voltage	V_{EBO}	12	V
Collector Current	I_C	300	mA
Power Dissipation ¹⁾	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

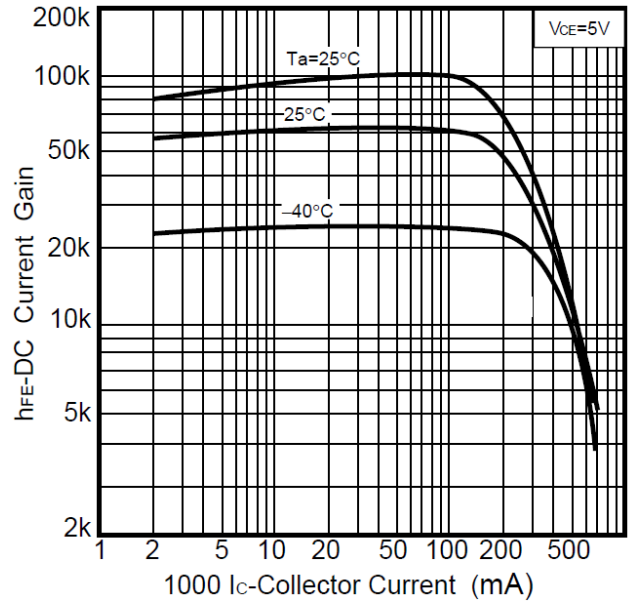
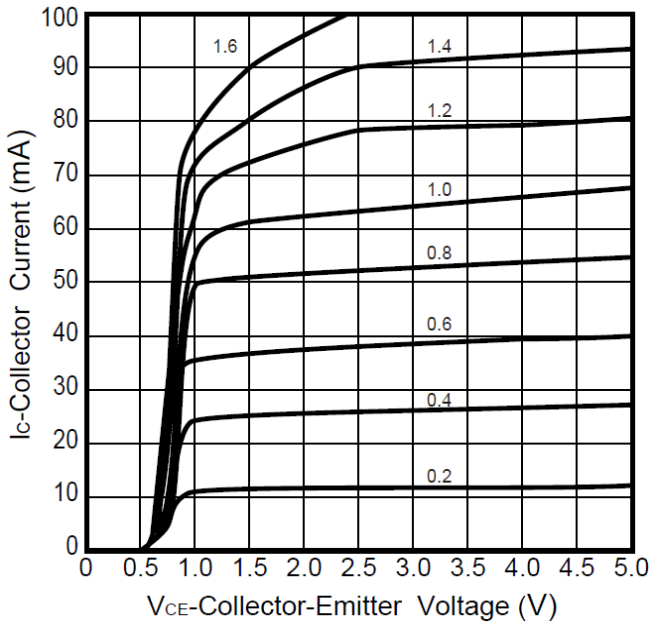
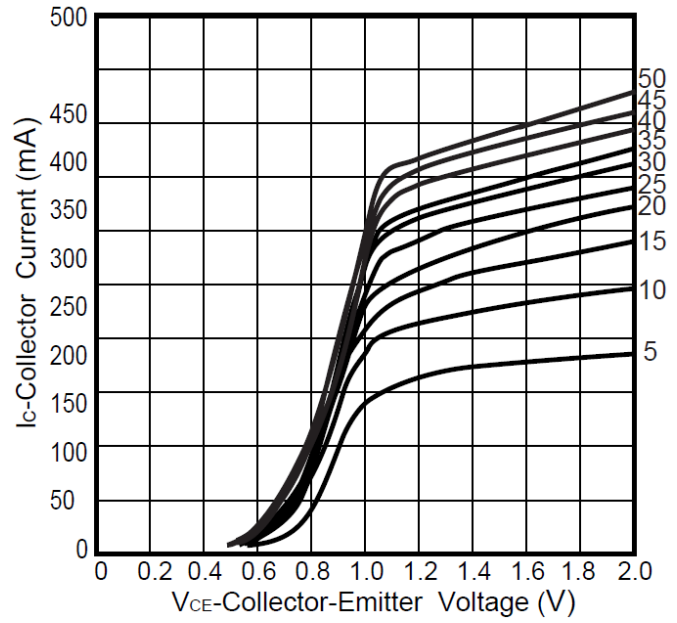
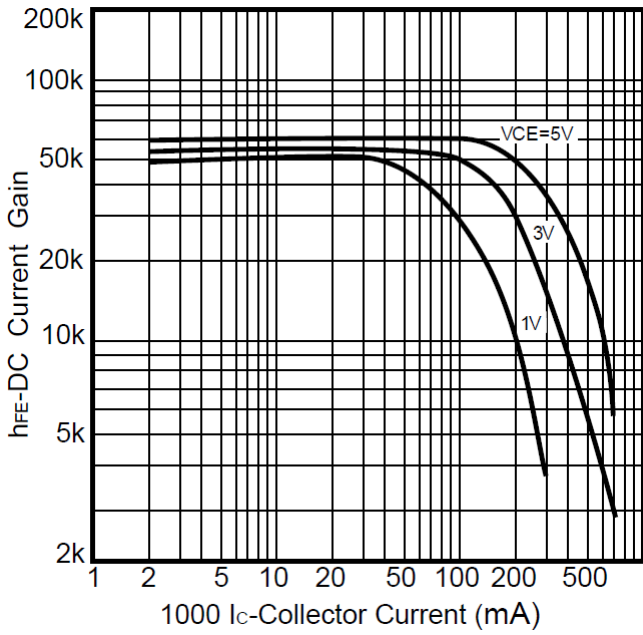
¹⁾ Each terminal mounted on a reference land.

MMBTA28-HAF

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$ at $V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$	h_{FE} h_{FE}	10000 10000	- -	- -
Collector Base Cutoff Current at $V_{CB} = 60\text{ V}$	I_{CBO}	-	100	nA
Collector Emitter Cutoff Current at $V_{CE} = 10\text{ V}$	I_{CES}	-	500	nA
Emitter Base Cutoff Current at $V_{EB} = 10\text{ V}$	I_{EBO}	-	100	nA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	80	-	V
Collector Emitter Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CES}$	80	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	12	-	V
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 10\text{ }\mu\text{A}$ at $I_C = 100\text{ mA}$, $I_B = 100\text{ }\mu\text{A}$	$V_{CE(sat)}$ $V_{CE(sat)}$	- -	1.2 1.5	V V
Base Emitter On Voltage at $I_C = 100\text{ mA}$, $V_{CE} = 5\text{ V}$	$V_{BE(on)}$	-	2	V
Current Gain Bandwidth Product at $V_{CE} = 5\text{ V}$, $I_E = -10\text{ mA}$, $f = 100\text{ MHz}$	f_T	125	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $I_E = 0\text{ A}$, $f = 1\text{ MHz}$	C_{obo}	-	8	pF

MMBTA28-HAF



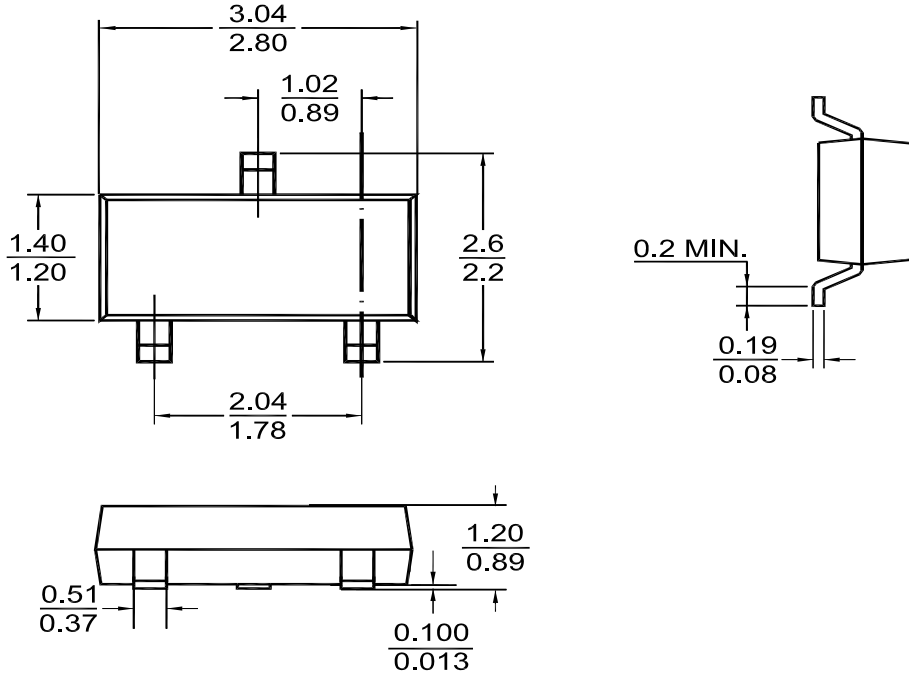
TOP DYNAMIC

MMBTA28-HAF

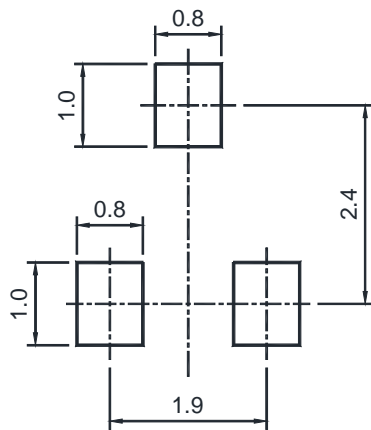
PACKAGE OUTLINE

Plastic surface mounted package (Dimensions in mm)

SOT-23



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

TOP DYNAMIC