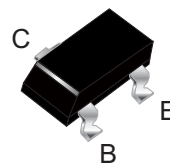


FEATURES

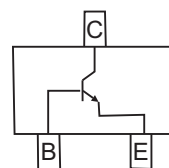
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to MMBT3906
- Power dissipation of 200mW
- High stability and high Reliability

SOT-23



MECHANICAL DATA

- Case: SOT-23(TO-236)
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: 1AM



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	40
Collector-Base Voltage	V_{CBO}	V	60
Emitter-Base Voltage	V_{EBO}	V	6
Collector Current, Continuous	I_C	mA	200
Collector Power Dissipation	P_D	mW	200
Operation Junction Temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage Temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	625

MMBT3904

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	$I_C=1.0\text{mA}, I_B=0$	40	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	$I_C=10\mu\text{A}, I_E=0$	60	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	$I_E=10\mu\text{A}, I_C=0$	6	---
Collector cut-off Current	I_{CBO}	nA	$V_{CB}=60\text{V}, I_E=0$	---	100
Collector cut-off Current	I_{CEO}	nA	$V_{CE}=20\text{V}, I_B=0$	---	---
Emitter cut-off Current	I_{EBO}	nA	$V_{EB}=5\text{V}, I_C=0$	---	100
DC Current Gain	$h_{FE(1)}$		$I_C=10\text{mA}, V_{CE}=1\text{V}$	100	300
	$h_{FE(2)}$		$I_C=50\text{mA}, V_{CE}=1\text{V}$	60	---
	$h_{FE(3)}$		$I_C=100\text{mA}, V_{CE}=1\text{V}$	30	---
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=10\text{mA}, I_B=1\text{mA}$	---	---
			$I_C=50\text{mA}, I_B=5\text{mA}$	---	0.3
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=10\text{mA}, I_B=1\text{mA}$	---	---
			$I_C=50\text{mA}, I_B=5\text{mA}$	---	0.95
Output Capacitance	C_{ob}	pF	$V_{CB}=6\text{V}, f=1.0\text{MHz}, I_E=0$	---	---
Input Capacitance	C_{ib}	pF	$V_{EB}=0.5\text{V}, f=1.0\text{MHz}, I_C=0$	---	---
Current Gain-Bandwidth Product	f_T	MHz	$I_C=10\text{mA}, V_{CE}=20\text{V}$ $f=100\text{MHz}$	300	---
Noise Figure	NF	dB	$V_{CE}=5.0\text{V}, f=1.0\text{kHz}$, $I_C=100\mu\text{A}, R_S=1.0\text{K}$	---	---

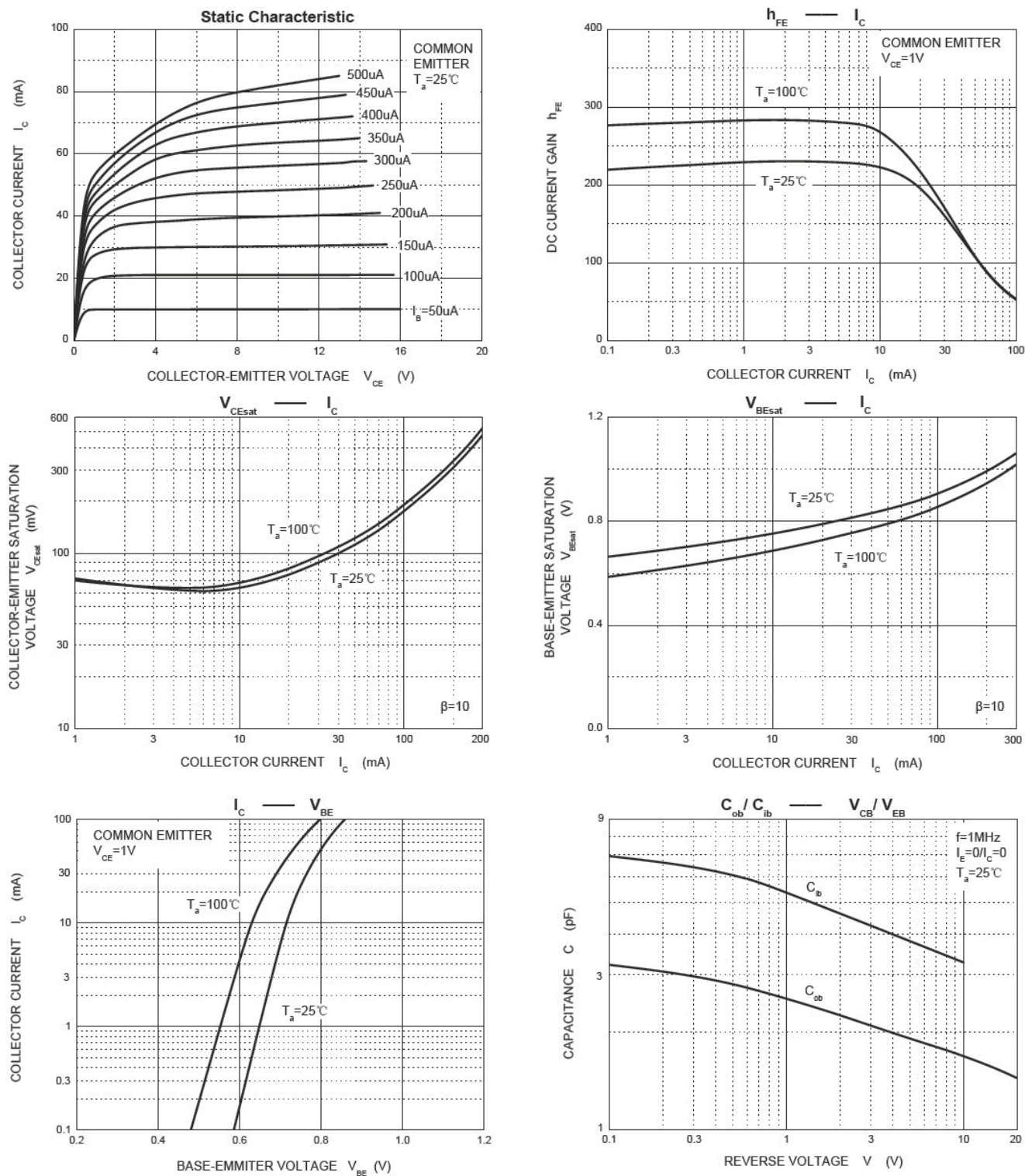
CLASSIFICATION OF $h_{FE(1)}$

h_{FE}	100-300	
Rank	L	H
Range	100-200	200-300

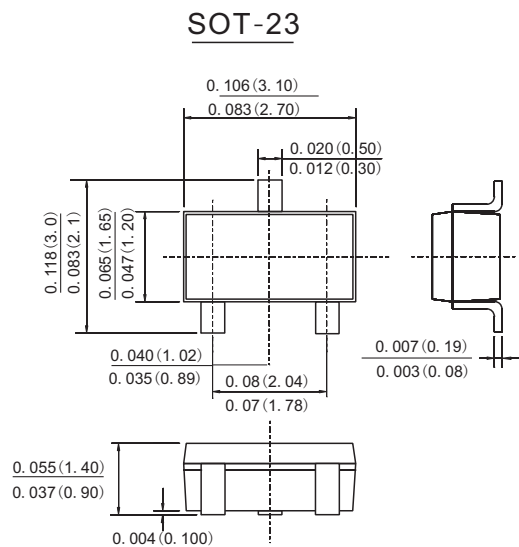
AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (Pcs/reel)	Quantity (pcs/box)	Quantity (pcs/carton)
MMBT3904	T/R	$\Phi 180$	3K	30K	120K

Characteristics(Typical)

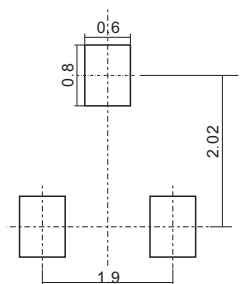


Outline Dimensions



Dimensions in inches and (millimeters)

Suggested pad layout



Dimensions in millimeters

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