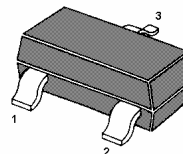


# MMBT2907 / MMBT2907A

## PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the NPN transistor MMBT2222 and MMBT2222A are recommended.

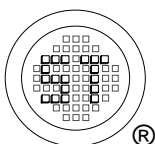


1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

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

Parameter	Symbol	Value		Unit
		MMBT2907	MMBT2907A	
Collector Base Voltage	$-V_{CBO}$	60		V
Collector Emitter Voltage	$-V_{CEO}$	40	60	V
Emitter Base Voltage	$-V_{EBO}$	5		V
Collector Current	$-I_C$	600		mA
Power Dissipation	$P_{tot}$	200		mW
Junction Temperature	$T_j$	150		$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to +150		$^\circ\text{C}$



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

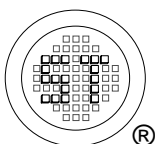


Dated : 23/12/2005

# MMBT2907 / MMBT2907A

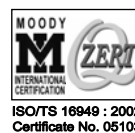
## Characteristics at $T_a = 25^\circ\text{C}$

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-I_C = 0.1\text{ mA}$ , $-V_{CE} = 10\text{ V}$	MMBT2907	$h_{FE}$	35	-	-
	MMBT2907A	$h_{FE}$	75	-	-
at $-I_C = 1\text{ mA}$ , $-V_{CE} = 10\text{ V}$	MMBT2907	$h_{FE}$	50	-	-
	MMBT2907A	$h_{FE}$	100	-	-
at $-I_C = 10\text{ mA}$ , $-V_{CE} = 10\text{ V}$	MMBT2907	$h_{FE}$	75	-	-
	MMBT2907A	$h_{FE}$	100	-	-
at $-I_C = 150\text{ mA}$ , $-V_{CE} = 10\text{ V}$	MMBT2907	$h_{FE}$	100	300	-
	MMBT2907A	$h_{FE}$	30	-	-
at $-I_C = 500\text{ mA}$ , $-V_{CE} = 10\text{ V}$	MMBT2907	$h_{FE}$	30	-	-
	MMBT2907A	$h_{FE}$	50	-	-
Collector Cutoff Current at $-V_{CB} = 50\text{ V}$	MMBT2907	$-I_{CBO}$	-	20	nA
	MMBT2907A	$-I_{CBO}$	-	10	nA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$		$-V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	MMBT2907	$-V_{(BR)CEO}$	40	-	V
	MMBT2907A	$-V_{(BR)CEO}$	60	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$		$-V_{(BR)EBO}$	5	-	V
Collector Saturation Voltage at $-I_C = 150\text{ mA}$ , $-I_B = 15\text{ mA}$		$-V_{CE(sat)}$	-	0.4	V
		$-V_{CE(sat)}$	-	1.6	V
Base Saturation Voltage at $-I_C = 150\text{ mA}$ , $-I_B = 15\text{ mA}$		$-V_{BE(sat)}$	-	1.3	V
		$-V_{BE(sat)}$	-	2.6	V
Gain Bandwidth Product at $-I_C = 50\text{ mA}$ , $-V_{CE} = 20\text{ V}$ , $f = 100\text{ MHz}$		$f_T$	200	-	MHz
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$		$C_{ob}$	-	8	pF
Input Capacitance at $-V_{BE} = 2\text{ V}$ , $f = 1\text{ MHz}$		$C_{ib}$	-	30	pF



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 23/12/2005