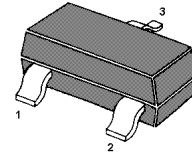


MMBTSC3837

NPN Silicon Epitaxial Planar Transistor

for high frequency amplifier application



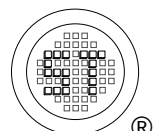
1.BASE 2.EMITTER 3.COLLECTOR
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	18	V
Emitter Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Collector 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 $V_{CE} = 10\text{ V}$, $I_C = 10\text{ mA}$	h_{FE}	56	-	180	-
Collector Base Cutoff Current at $V_{CB} = 10\text{ V}$	I_{CBO}	-	-	500	nA
Emitter Base Cutoff Current at $V_{EB} = 2\text{ V}$	I_{EBO}	-	-	500	nA
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	18	-	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	3	-	-	V
Collector Emitter Saturation Voltage at $I_C = 20\text{ mA}$, $I_B = 4\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V
Transition Frequency at $V_{CB} = 10\text{ V}$, $I_C = 10\text{ mA}$, $f = 200\text{ MHz}$	f_T	600	-	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	-	1.5	pF



SEMTECH

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