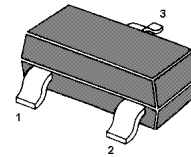


MMBTSC5084

NPN Silicon Epitaxial Planar Transistor

for low noise, high gain amplifier at VHF~UHF band.

The transistor is subdivided into two groups O and Y, according to its DC current gain.



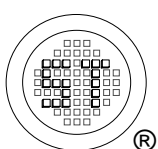
1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	20	V
Collector Emitter Voltage	V_{CEO}	12	V
Emitter Base Voltage	V_{EBO}	3	V
Base Current	I_B	40	mA
Collector Current	I_C	80	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$ Current Gain Group	O Y	h_{FE}	80	-	160	-
		h_{FE}	120	-	240	-
Collector Base Cutoff Current at $V_{CB} = 10\text{ V}$	I_{CBO}	-	-	1	μA	
Emitter Base Cutoff Current at $V_{EB} = 1\text{ V}$	I_{EBO}	-	-	1	μA	
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	20	-	-	V	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	12	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	3	-	-	V	
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$	f_T	-	7	-	GHz	
Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	1	-	pF	



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