

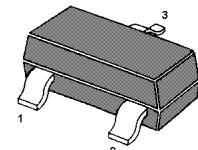
# MMBTSC3531-AH

## NPN Silicon Epitaxial Planar Transistor

low frequency power amp, converter electronic governor applications.

### Features

- AEC-Q101 Qualified and PPAP Capable
- Halogen and Antimony Free(HAF), RoHS compliant



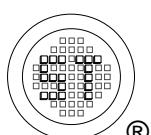
1. Base 2. Emitter 3. Collector  
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	30	V
Collector Emitter Voltage	$V_{CEO}$	20	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	1	A
Peak Pulse Current	$I_{CM}$	3	A
Power Dissipation	$P_{tot}$	0.6	W
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 $V_{CE} = 2 \text{ V}$ , $I_C = 50 \text{ mA}$	$h_{FE}$	120	-	240	-
at $V_{CE} = 2 \text{ V}$ , $I_C = 1 \text{ A}$	$h_{FE}$	200	-	400	-
at $V_{CE} = 2 \text{ V}$ , $I_C = 1 \text{ A}$	$h_{FE}$	30	-	-	-
Collector Base Cutoff Current at $V_{CB} = 20 \text{ V}$	$I_{CBO}$	-	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 5 \text{ V}$	$I_{EBO}$	-	-	100	nA
Collector Emitter Saturation Voltage at $I_C = 500 \text{ mA}$ , $I_B = 50 \text{ mA}$	$V_{CE(sat)}$	-	-	0.3	V
Base Emitter Saturation Voltage at $I_C = 500 \text{ mA}$ , $I_B = 50 \text{ mA}$	$V_{BE(sat)}$	-	-	1.2	V
Transition Frequency at $V_{CE} = 10 \text{ V}$ , $I_C = 50 \text{ mA}$	$f_T$	-	180	-	MHz
Collector Output Capacitance at $V_{CB} = 10 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{ob}$	-	15	-	pF



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