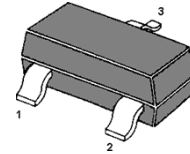


MMBTSD471 NPN Silicon Epitaxial Planar Transistor

Audio Frequency Power amplifier applications.

The transistor is subdivided into three group O, Y and G according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



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

Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	-55 to +150	°C

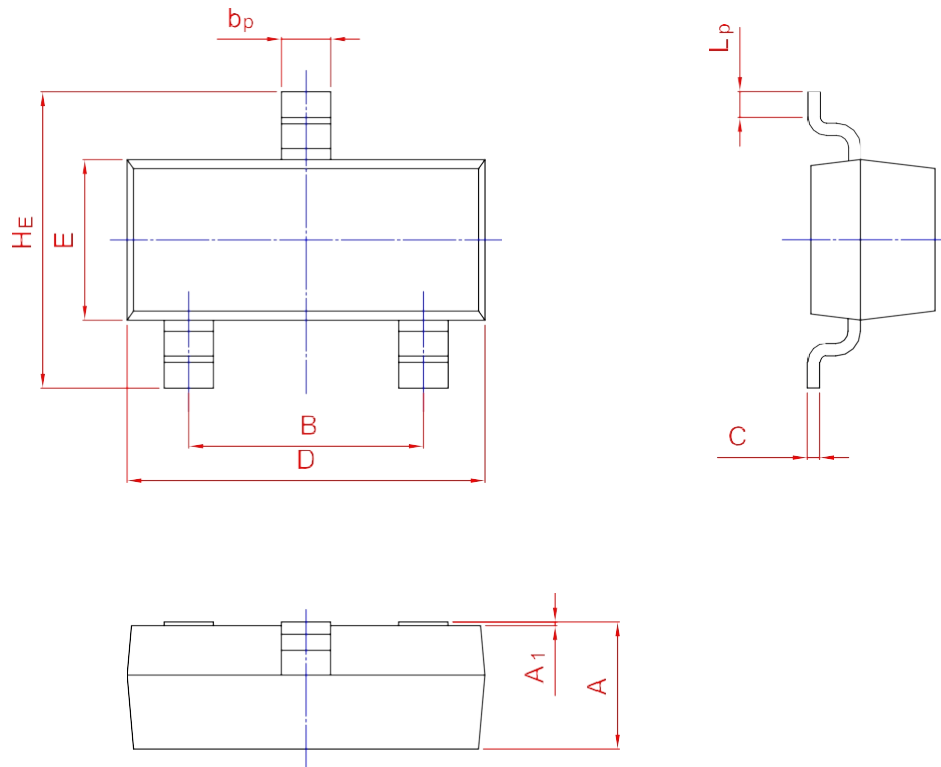
Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=1\text{V}$, $I_C=100\text{mA}$					
Current Gain Group O	h_{FE}	90	-	180	-
Y	h_{FE}	135	-	270	-
G	h_{FE}	200	-	400	-
Collector Emitter Breakdown Voltage at $I_C=10\text{mA}$	$V_{(BR)CEO}$	30	-	-	V
Collector Base Breakdown Voltage at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $V_{CB}=30\text{V}$	I_{CBO}	-	-	0.1	μA
Collector Saturation Voltage at $I_C=1.0\text{A}$, $I_B=100\text{mA}$	$V_{CE(sat)}$	-	-	0.5	V
Base Saturation Voltage at $I_C=1.0\text{A}$, $I_B=100\text{mA}$	$V_{BE(sat)}$	-	-	1.2	V
Collector Output Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	C_{OB}	-	18	-	pF
Transition Frequency at $V_{CE}=6\text{V}$, $I_C=10\text{mA}$	f_T	-	130	-	MHz

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	2.70 3.10	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20