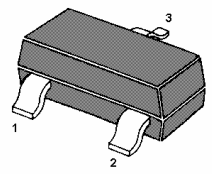
MMBTSC3199

NPN Silicon Epitaxial Planar Transistor
for switching and AF amplifier applications.

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

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

SOT-23



1.BASE 2.EMITTER 3.COLLECTOR

SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Emitter Current	I_E	-150	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_S	-55 to +125	°C

Characteristics at T_{amb}=25 °C

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at V_{CE}=6V, I_C=2mA					
Current Gain Group O	h_{FE}	70	-	140	-
Y	h_{FE}	120	-	240	-
G	h_{FE}	200	-	400	-
L	h_{FE}	350	-	700	-
Collector Emitter Saturation Voltage					
at I_C=100mA, I_B=10mA	$V_{CE(sat)}$	-	-	0.25	V
Collector Cutoff Current					
at V_{CB}=50V	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current					
at V_{EB}=5V	I_{EBO}	-	-	0.1	μA
Transition Frequency					
at V_{CE}=10V, I_C=1mA	f_T	80	-	-	MHz
Collector Output Capacitance					
at V_{CB}=10V, f=1MHz	C_{OB}	-	2	3.5	pF
Noise Figure					
at V_{CE}=6V, I_C=0.1mA, f=1KHz, R_G=10KΩ	NF	-	1	10	dB