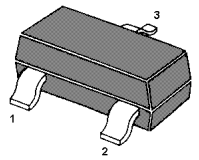
MMBTSC5065

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 °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	15	mA
Collector Current	I_C	30	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	- 55 to + 125	°C

Characteristics at T_{amb}=25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 5 V, I_C = 10 mA	Current Gain Group O	h_{FE}	80	-	160	-
	Current Gain Group Y	h_{FE}	120	-	240	-
Collector Base Cutoff Current at V_{CB} = 10 V		I_{CBO}	-	-	1	µA
Emitter Base Cutoff Current at V_{EB} = 1 V		I_{EBO}	-	-	1	µA
Collector Base Breakdown Voltage at I_C = 10 µA		$V_{(BR)CBO}$	20	-	-	V
Collector Emitter Breakdown Voltage at I_C = 1 mA		$V_{(BR)CEO}$	12	-	-	V
Emitter Base Breakdown Voltage at I_E = 10 µA		$V_{(BR)EBO}$	3	-	-	V
Transition Frequency at V_{CE} = 5 V, I_C = 10 mA		f_T	-	7	-	GHz
Output Capacitance at V_{CB} = 5 V, f = 1 MHz		C_{ob}	-	0.7	-	pF