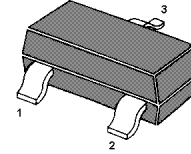


MMBTSC3356

NPN Silicon Epitaxial Planar Transistor

for microwave low noise amplifier at VHF, UHF and CATV band

The transistor is subdivided into three groups, Q, R and S, according to its DC current gain.



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

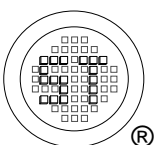
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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
Collector Current	I_C	100	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$ Current Gain Group	Q h_{FE}	50	-	100	-
	R h_{FE}	80	-	160	-
	S h_{FE}	125	-	250	-
Collector Cutoff Current at $V_{CB} = 10\text{ V}$	I_{CBO}	-	-	1	μA
Emitter 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
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 5\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$	f_T	-	7	-	GHz
Feed-Back Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	$C_{re}^{1)}$	-	-	1	pF

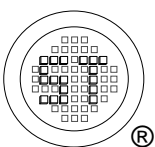
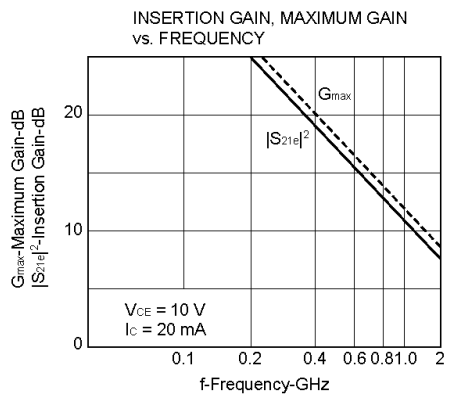
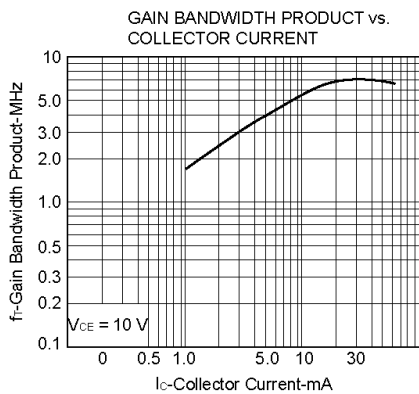
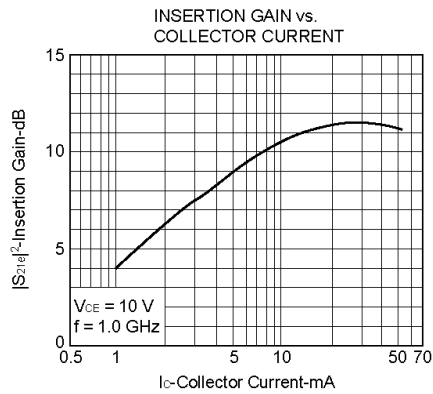
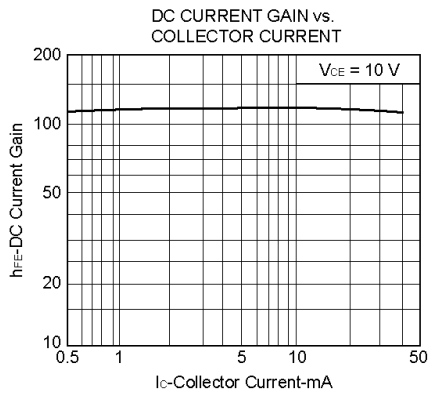
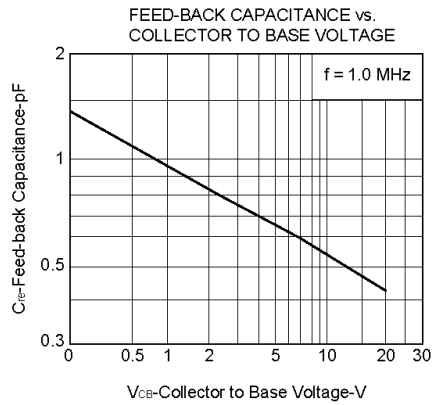
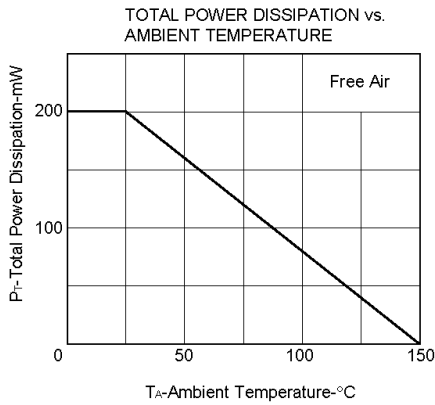
¹⁾ The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.



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ISO/TS 16949 : 2009
Certificate No. 160713000

ISO14001 : 2004
Certificate No. 7116

ISO 9001 : 2008
Certificate No. 50719410

BS-OHSAS 18001 : 2007
Certificate No. 7116

IECQ QC 080000
Certificate No. PRC-18P16-1483

Dated: 16/03/2015 Rev: 01