

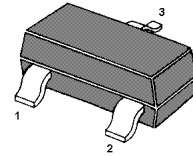
MMBTSC930

NPN Silicon Epitaxial Planar Transistor

for FM RF amp, mixer, osc, converter and IF amplifier.

The transistor is subdivided into four groups, C, D, E and F, according to its DC current gain.

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



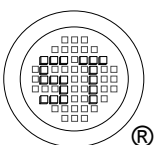
1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	30	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$ Current Gain Group	C	h_{FE}	40	-	80	-
	D	h_{FE}	60	-	120	-
	E	h_{FE}	100	-	200	-
	F	h_{FE}	160	-	320	-
Collector Base Cutoff Current at $V_{CB} = 10\text{ V}$	I_{CBO}	-	-	1	μA	
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	I_{EBO}	-	-	1	μA	
Gain Bandwidth Product at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$	f_T	-	300	-	MHz	
Reverse Transfer Capacitance at $V_{CB} = 6\text{ V}$, $f = 1\text{ MHz}$	C_{re}	-	-	1.8	pF	
Turn-on Time at $V_{IN} = +12\text{ V}$, $V_{BE} = -3\text{ V}$, appointed circuit	t_{on}	-	30	-	ns	
Turn-off Time at $V_{IN} = -12\text{ V}$, $V_{BE} = +3\text{ V}$, appointed circuit	t_{off}	-	30	-	ns	



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