isc Silicon NPN RF Transistor 2SC3544

DESCRIPTION

- Low Base Time Constant;
  $r_{bb'} \cdot C_C$ = 5 ps TYP.
- High Gain Bandwidth Product
  fT= 2 GHz TYP. @ I_E= 5mA, V_{CE}= 10V
- Low Feedback Capacitance;
  C_{re} = 0.55 pF TYP.
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

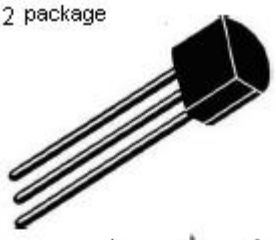
APPLICATIONS

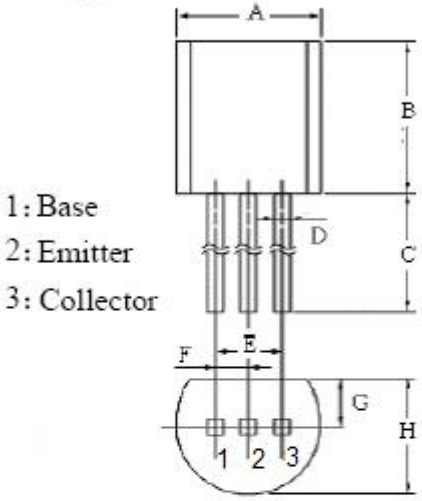
- Designed for use as UHF oscillator and mixer in a tuner of a TV receiver.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @T_C=25℃	0.25	W
T_J	Junction Temperature	125	℃
T_{stg}	Storage Temperature Range	-55~125	℃

TO-92 package





1: Base
2: Emitter
3: Collector

DIM	mm	
	MIN	MAX
A	4.33	4.83
B	4.33	4.83
C	14.0	15.0
D	0.36	0.56
E	2.54	
F	1.27	
G	0. 92	1. 12
H	3.40	3.60

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10mA ; I_B= 1mA			0.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 12V; I_E= 0			0.1	μA
h_{FE}	DC Current Gain	I_C= 5mA ; V_{CE}= 10V	50		250	
f_T	Current-Gain—Bandwidth Product	I_E= -5mA ; V_{CE}= 10V	1.3	2.0		GHz
C_{re}	Feedback Capacitance	I_E= 0 ; V_{CB}= 10V;f= 1.0MHz		0.55	1.0	pF
$r_{bb'} \cdot C_C$	Base Time Constant	V_{CE}= 10V,I_E = -5mA,f = 31.9 MHz		5	15	ps

◆ **h_{FE} Classifications**

Marking	M	L	K
h_{FE}	50-100	70-140	120-250