

DESCRIPTION

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

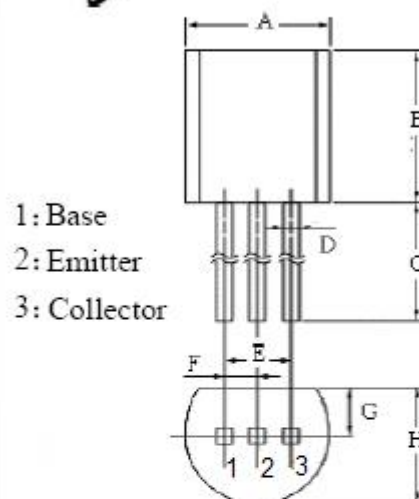
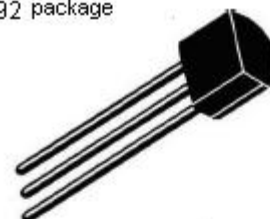
APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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 @ $T_c = 25^\circ\text{C}$	0.25	W
T_J	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~125	$^\circ\text{C}$

TO-92 package



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

isc Silicon NPN RF Transistor

2SC3544

ELECTRICAL CHARACTERISTICS

T_c=25°C 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 _{CB0}	Collector Cutoff Current	V _{CB} = 12V; I _E = 0			0.1	μ A
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'} · 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

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