

isc Silicon NPN RF Transistor

2SC1730

DESCRIPTION

- Low Base Time Constant;
 $r_{bb'} \cdot C_C = 10 \text{ ps TYP.}$
- High Gain Bandwidth Product
 $f_T = 1100 \text{ MHz TYP.}$
- Low Output Capacitance;
 $C_{OB} = 1.5 \text{ pF Max.}$

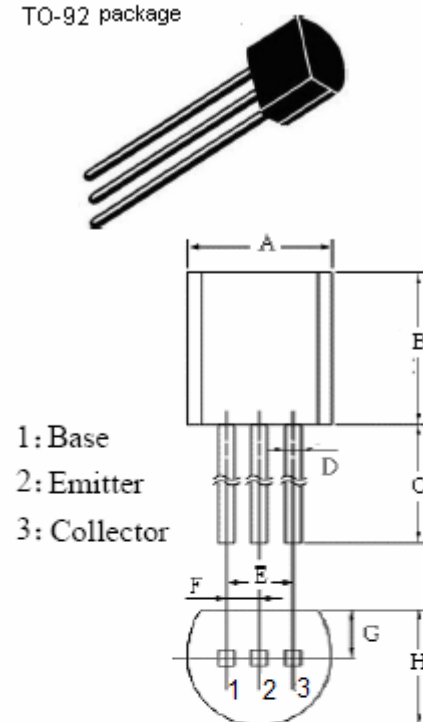
APPLICATIONS

- Designed for TV VHF, UHF tuner oscillator applications.

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	5	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**2SC1730****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}$; $I_B=1\text{mA}$			0.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=12\text{V}$; $I_E=0$			0.1	μA
h_{FE}	DC Current Gain	$I_C=5\text{mA}$; $V_{CE}=10\text{V}$	40		180	
f_T	Current-Gain—Bandwidth Product	$I_E=-5\text{mA}$; $V_{CE}=10\text{V}$	800	1100		MHz
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f=1.0\text{MHz}$			1.5	pF
$r_{bb'} \cdot C_C$	Base Time Constant	$V_{CE}=10\text{V}$, $I_E=-5\text{mA}$, $f=31.9\text{MHz}$		10	15	ps

◆ **h_{FE} Classifications**

Marking	M	L	K
h_{FE}	40-80	60-120	90-180