

isc Silicon NPN RF Transistor

2SC1730

DESCRIPTION

- Low Base Time Constant;
 $r_{bb'} \cdot CC = 10 \text{ ps TYP.}$
- High Gain Bandwidth Product
 $f_T = 1100 \text{ MHz TYP.}$
- Low Output Capacitance;
 $C_{OB} = 1.5 \text{ pF Max.}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

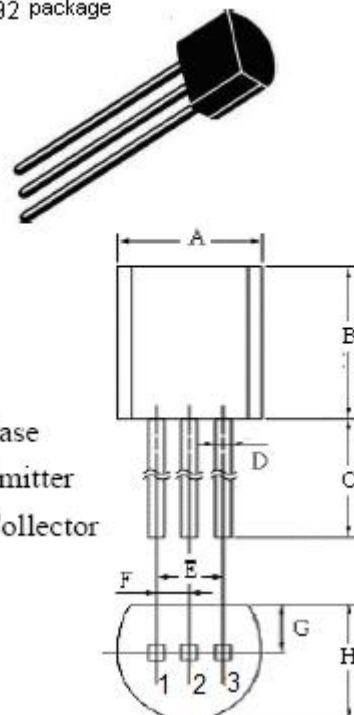
APPLICATIONS

- 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	$^\circ\text{C}$

TQ-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

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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	μ A
h _{FE}	DC Current Gain	I _c = 5mA ; V _{CE} = 10V	40		180	
f _T	Current-Gain—Bandwidth Product	I _E =5mA ; V _{CE} = 10V	800	1100		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f= 1.0MHz			1.5	pF
r _{bb'} • C _C	Base Time Constant	V _{CE} = 10V, I _E = -5mA, f = 31.9 MHz		10	15	ps

◆ h_{FE} Classifications

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

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