



TIGER ELECTRONIC CO.,LTD

KCS1730 NPN

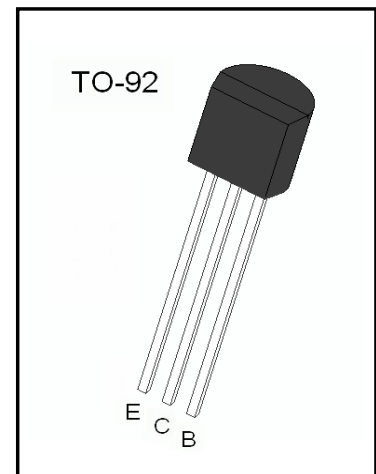
TO-92 Plastic-Encapsulate Transistors

TV VHF, UHF Tuner Oscillator

- High Current Gain Bandwidth Product : $f_T=1100\text{MHz}$
- Output Capacitance : $\text{COB}=1.5\text{pF (MAX.)}$

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	30	V
Collector-Emitter Voltage	BV_{CEO}	15	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 10\mu\text{A}, I_E = 0$	30			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 5\text{mA}, I_B = 0$	15			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}} = 12\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{\text{CE}} = 10\text{V}, I_C = 5\text{mA}$	40		240	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_C = 10\text{mA}, I_B = 1\text{mA}$			0.5	V
Transition frequency	f_T	$V_{\text{CE}} = 10\text{V}, I_B = 5\text{mA}$	800	1100		MHz
Collector output capacitance	COB	$V_{\text{CB}} = 10\text{V}, I_E = 0, f = 1\text{MHz}$			1.5	pF

hFE Classification

Classification	R	O	Y
hFE	40-80	70-140	120-240