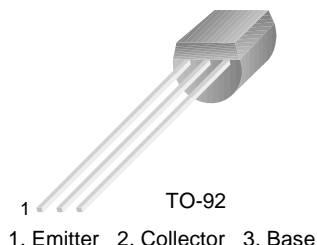


KSC3114

KSC3114

Audio Frequency Amplifier High Frequency OSC.

- High Current Gain : $h_{FE}=280\sim 560$
- Collector-Base Voltage : $V_{CBO}=60V$
- High Current Gain Bandwidth Product : $f_T=300MHz$ (TYP)



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current	150	mA
P_C	Collector Power Dissipation	250	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

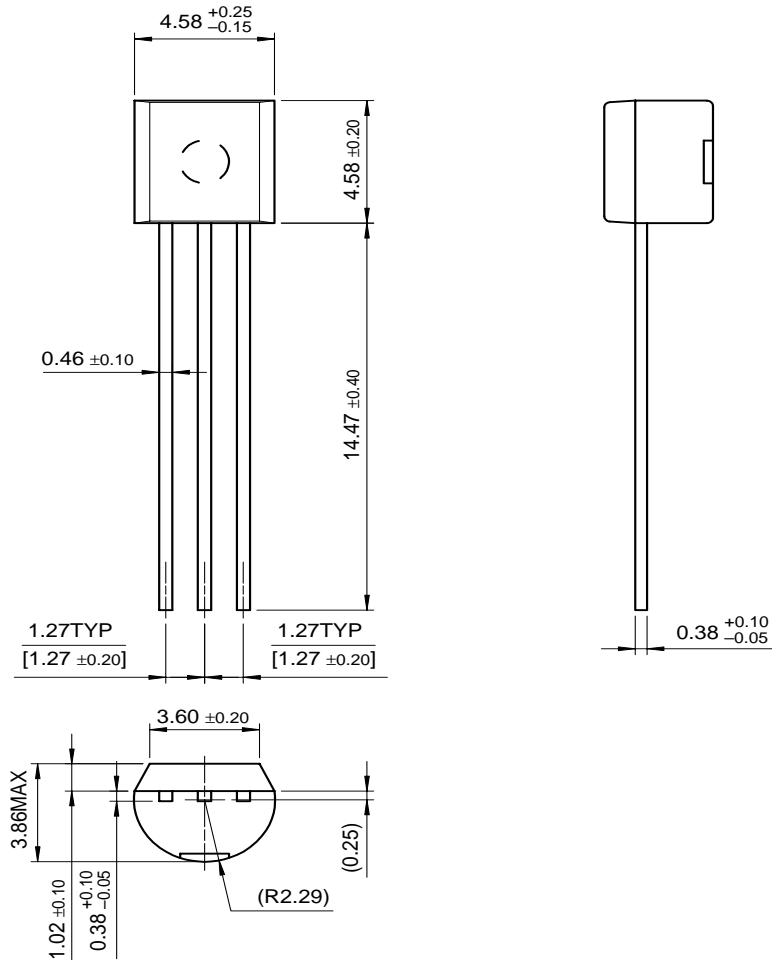
Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10mA, I_B=0$	50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=10\mu A, I_C=0$	12			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=40V, I_E=0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=3V, I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=6V, I_C=1.0mA$	280		560	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=100mA, I_B=10mA$		0.15	0.3	V
f_T	Current Gain Bandwidth Product	$V_{CE}=6V, I_C=10mA$		300		MHz
C_{ob}	Output Capacitance	$V_{CB}=6V, I_E=0, f=1MHz$		2.5		pF
NF	Noise Figure	$V_{CE}=6V, I_C=0.5mA, f=1KHz, R_S=500\Omega$		4.0		dB

Package Dimensions

KSC3114

TO-92



Dimensions in Millimeters

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