



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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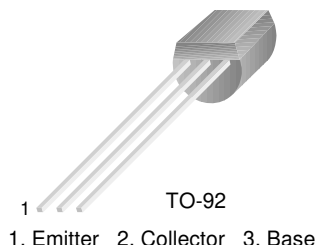
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KSC2001

General Purpose Applications

- High h_{FE} and Low $V_{CE(sat)}$



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	700	mA
I_B	Base Current	150	mA
P_C	Collector Power Dissipation	600	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{BE(on)}$	* Base Emitter On Voltage	$V_{CE}=6\text{V}, I_C=10\text{mA}$	600	640	700	mV
I_{CBO}	Collector Cut-off Current	$V_{CB}=30\text{V}, I_E=0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=5\text{V}, I_C=0$			100	nA
h_{FE1} h_{FE2}	* DC Current Gain	$V_{CE}=1\text{V}, I_C=100\text{mA}$ $V_{CE}=1\text{V}, I_C=700\text{mA}$	90 50	200 140	400	
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C=700\text{mA}, I_B=70\text{mA}$		0.2	0.6	V
$V_{BE(sat)}$	* Base-Emitter Saturation Voltage	$I_C=700\text{mA}, I_B=70\text{mA}$		0.95	1.2	V
C_{ob}	Output Capacitance	$V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$		13	25	pF
f_T	Current Gain Bandwidth Product	$V_{CE}=6\text{V}, I_C=10\text{mA}$	50	170		MHz

* Pulse test: $PW \leq 350\mu\text{s}$, Duty cycle $\leq 2\%$

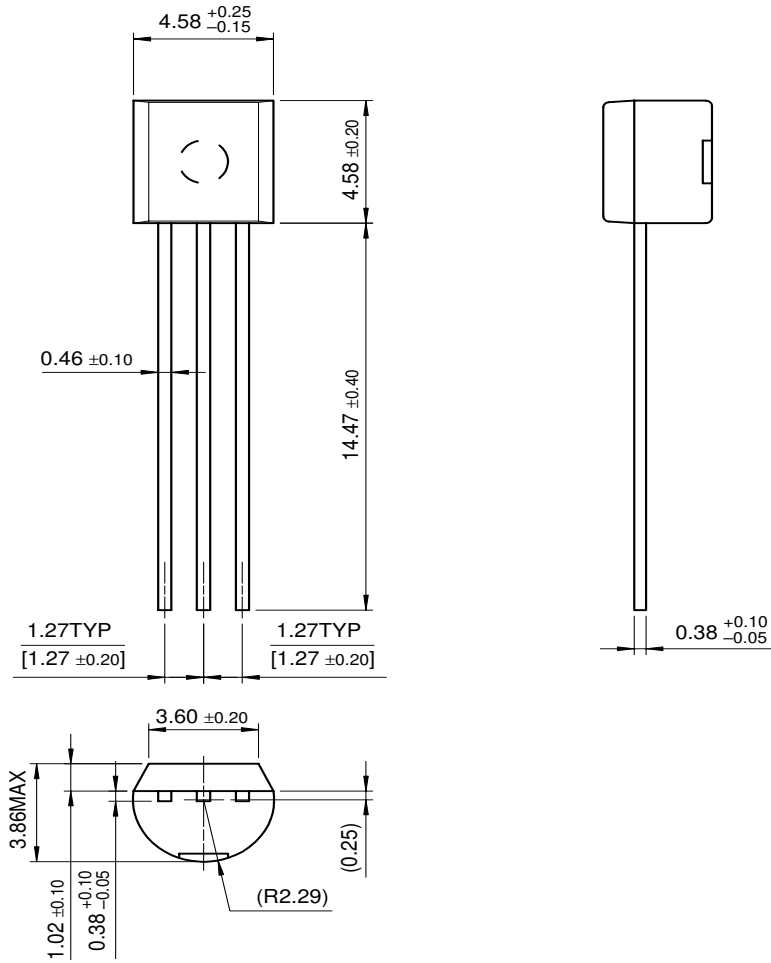
h_{FE} Classification

Classification	O	Y	G
h_{FE1}	90 ~ 180	135 ~ 270	200 ~ 400

Package Dimensions

KSC2001

TO-92



Dimensions in Millimeters

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