

TO-92 Plastic-Encapsulate Transistors

C2001L011 NPN Transistors

Features

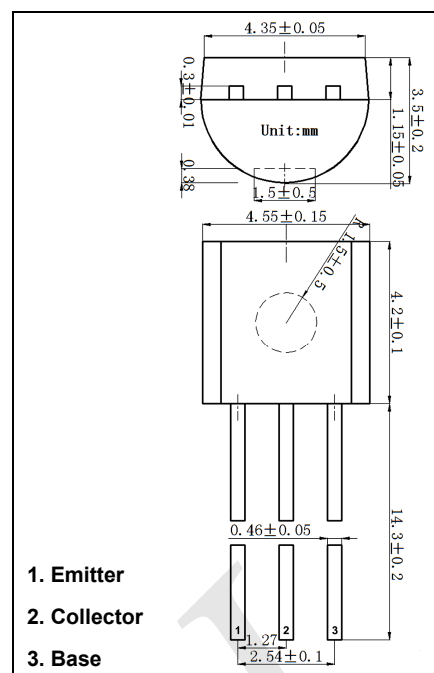
■ High h_{FE} and Low $V_{CE(sat)}$

$h_{FE}(I_C=100mA)$: 200(Typ)

$V_{CE(sat)}(700mA)$: 0.2V (Typ)

Maximum Ratings ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
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	0.7	A
P_C	Collector Power Dissipation	600	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 specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = 100\mu A, I_E = 0$	30			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = 10mA, I_B = 0$	25			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = 100\mu A, I_C = 0$	5			V
I_{CBO}	Collector cut-off current	$V_{CB} = 30V, I_E = 0$			100	nA
I_{CEO}	Collector cut-off current	$V_{CE} = 20V, I_B = 0$			100	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = 5V, I_C = 0$			100	nA
$h_{FE(1)}$	DC current gain	$V_{CE} = 5V, I_C = 1mA$	90			
$h_{FE(2)}$		$V_{CE} = 5V, I_C = 10mA$	90			
$h_{FE(3)}$		$V_{CE} = 1V, I_C = 100mA$	90		400	
$h_{FE(4)}$		$V_{CE} = 1V, I_C = 700mA$	50			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = 700mA, I_B = 70mA$			0.6	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C = 700mA, I_B = 70mA$			1.2	V
f_T	Transition frequency	$V_{CE}=6V, I_C=10mA, f=30MHz$	50			MHz

Classification OF $h_{FE(3)}$

Rank	M	L	K
Range	19-180	135-270	200-400

Typical Characteristics

Static Characteristic

