

RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

- General Purpose Switching Application

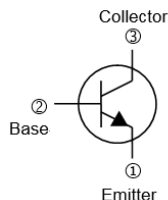
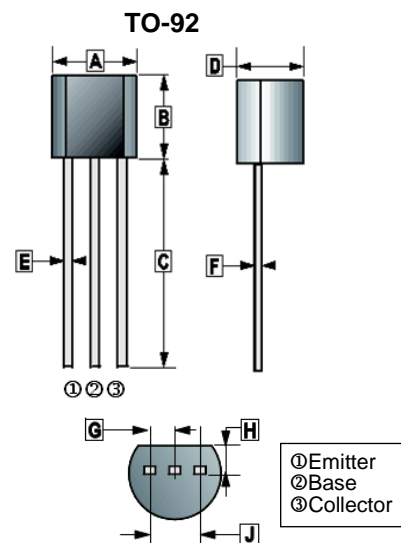
CLASSIFICATION OF h_{FE}

Product Rank	2N5551-A	2N5551-B	2N5551-C
Range	100~150	150~200	200~300

ORDER INFORMATION

Part Number	Type
2N5551-□	Lead (Pb)-free
2N5551-□-C	Lead (Pb)-free and Halogen-free

□= Rank



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.30	4.70	F	0.30	0.51
B	4.30	4.70	G	1.27 TYP.	
C	12.70	14.5	H	1.10	1.40
D	3.30	3.81	J	2.42	2.66
E	0.36	0.56			

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CB0}	180	V
Collector-Emitter Voltage	V_{CE0}	160	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	600	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	180	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage ¹	$V_{(BR)CEO}$	160	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector Cut-off Current	I_{CBO}	-	-	50	nA	$V_{CB}=120\text{V}, I_E=0$
Emitter Cut-off Current	I_{EBO}	-	-	50	nA	$V_{EB}=4\text{V}, I_C=0$
DC Current Gain ¹	$h_{FE(1)}$	80	-	-		$V_{CE}=5\text{V}, I_C=1\text{mA}$
	$h_{FE(2)}$	100	-	300		$V_{CE}=5\text{V}, I_C=10\text{mA}$
	$h_{FE(3)}$	50	-	-		$V_{CE}=5\text{V}, I_C=50\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.15	V	$I_C=10\text{mA}, I_B=1\text{mA}$
	$V_{CE(sat)}$	-	-	0.2	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1	V	$I_C=10\text{mA}, I_B=1\text{mA}$
	$V_{BE(sat)}$	-	-	1	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Transition Frequency	f_T	100	-	300	MHz	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$
Collector Output Capacitance	C_{ob}	-	6	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Emitter Input Capacitance	C_{ib}	-	20	-	pF	$V_{BE}=0.5\text{V}, I_C=0, f=1\text{MHz}$

Note:

- Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

TYPICAL CHARACTERISTICS

