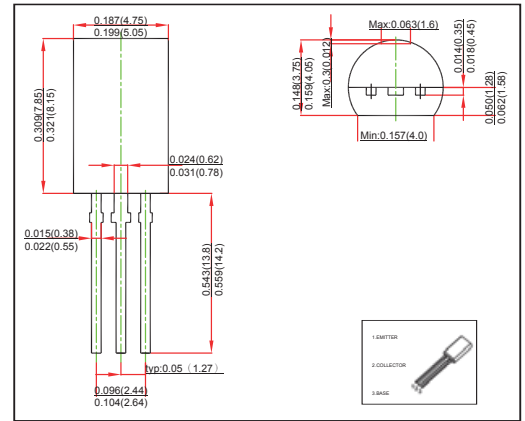


**TO-92L Plastic-Encapsulate Transistors**
**FEATURES**

- Low Saturation Voltage:  $V_{CE(sat)}=0.5V(\text{Max})(I_C=1A)$
- High Speed Switching Time:  $t_{stg}=1\mu s(\text{Typ.})$
- Complementary to 2SA1020
- TRANSISTOR (NPN)

**MECHANICAL DATA**

- Case style: TO-92L molded plastic
- Mounting position: any


**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current –Continuous	$I_C$	2	A
Collector Power Dissipation	$P_C$	0.9	W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

			Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CB0}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CB0}$	$V_{CB}=50V, I_E=0$			1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=500mA$	70		240	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=1.5A$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=0.05A$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=0.05A$			1.2	V
Transition frequency	$f_T$	$V_{CE}=2V, I_C=0.5A$		100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		30		pF
Switch time	Tune on Time	$t_{on}$		0.1		$\mu s$
	Storage Time	$t_{stg}$	$V_{CC}=30V, I_C=1A, I_{B1}=-I_{B2}=0.05A$	1		
	Fall Time	$t_f$		0.1		

## RATINGS AND CHARACTERISTIC CURVES

