

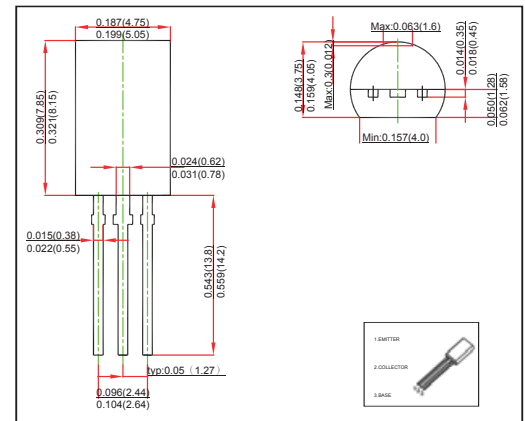
TO-92L Plastic-Encapsulate Transistors

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_{CBO}	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	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	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_{CBO}	$V_{CB}=50V, I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			1	μA
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		μs
	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

Static Characteristic

