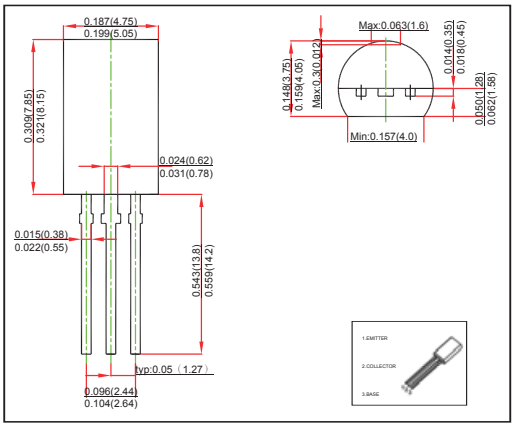
TO-92L Plastic-Encapsulate Transistors

FEATURES

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

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

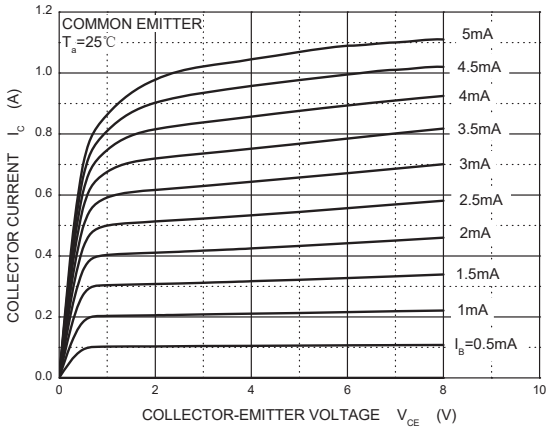
@ 25°C Ambient Temperature (unless otherwise noted)

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	℃
Storage Temperature	T_{stg}	-55~+150	℃

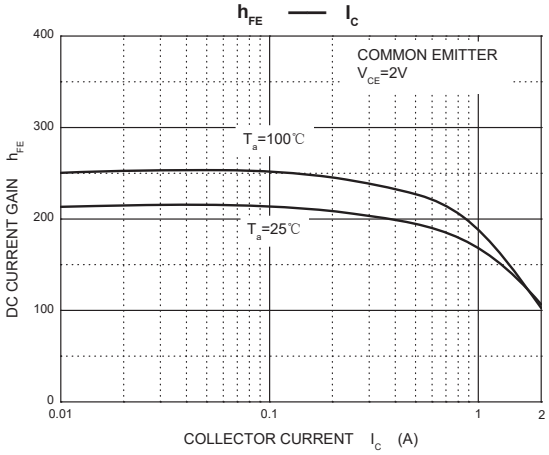
				Min	Typ	Max	Unit
Collector-base breakdown voltage		$V_{(BR)CBO}$	I_C=100μA,I_E=0	50			V
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	I_C=10mA,I_B=0	50			V
Emitter-base breakdown voltage		$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current		I_{CBO}	V_{CB}=50V,I_E=0			1	μA
Emitter cut-off 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}	V_{CC}=30V,Ic=1A, I_{B1}=-I_{B2}=0.05A		0.1		μs
	Storage Time	t_{stg}			1		
	Fall Time	t_f			0.1		

RATINGS AND CHARACTERISTIC CURVES

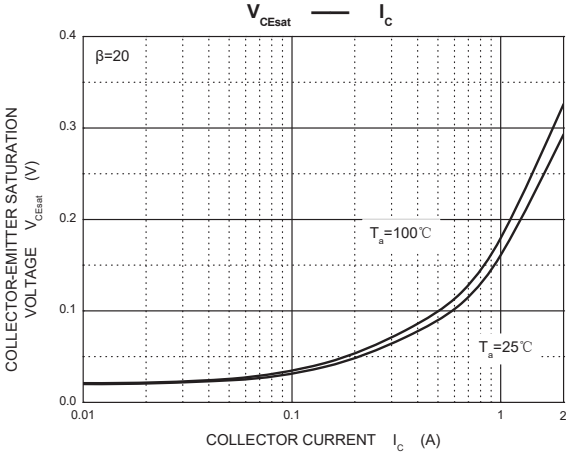
Static Characteristic



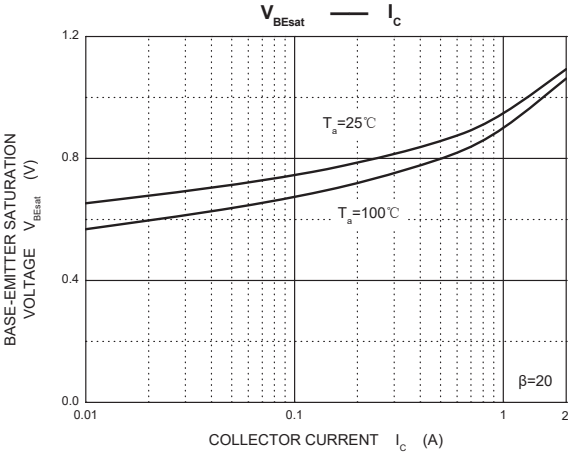
h_{FE} — I_C



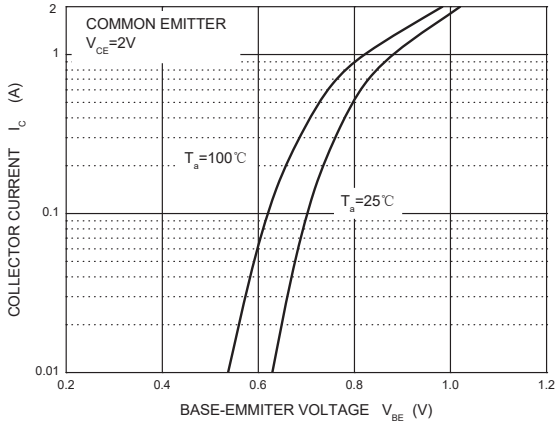
V_{CEsat} — I_C



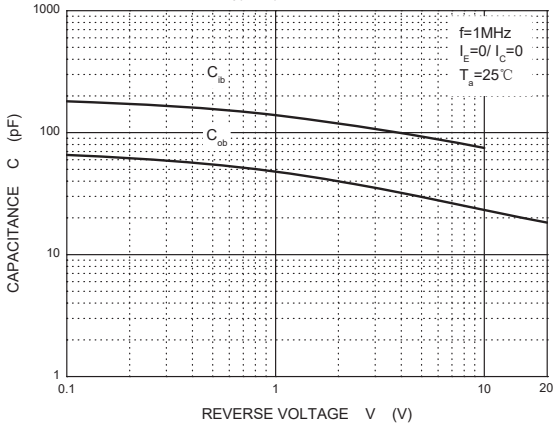
V_{BEsat} — I_C



I_C — V_{BE}



C_{ob} / C_{ib} — V_{CB} / V_{EB}



Pc — Ta