



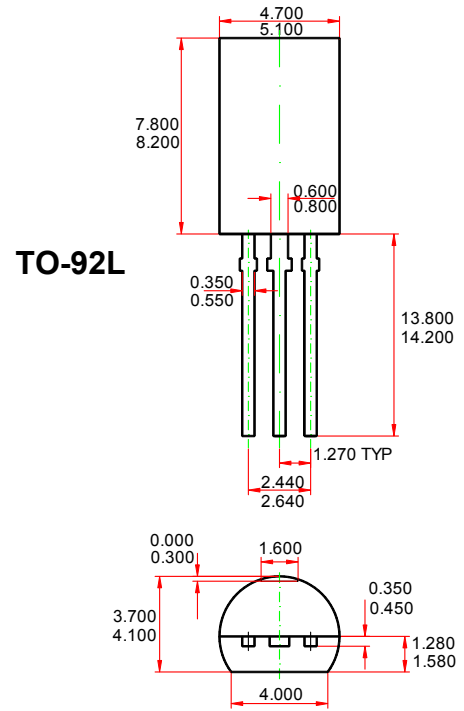
1.EMITTER
2.COLLECTOR
3.BASE

Features

- Low saturation voltage: $V_{CE(sat)}=0.5V(Max)(I_C=1A)$
- High speed switching time: $t_{stg}=1\mu s(Typ.)$
- Complementary to 2SA1020

MAXIMUM RATINGS ($T_A=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Symbol	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current –Continuous	2	A
P_C	Collector Power Dissipation	0.9	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$



Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ unless otherwise specified)

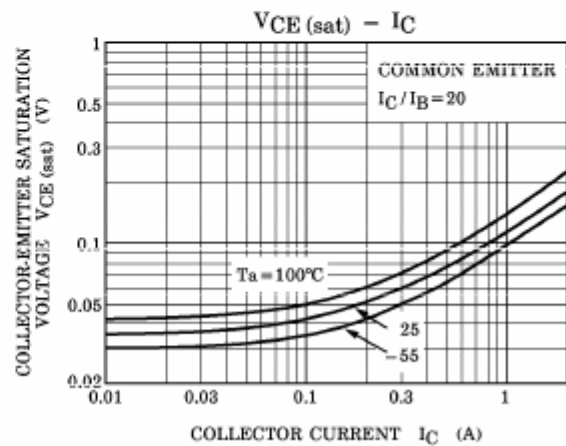
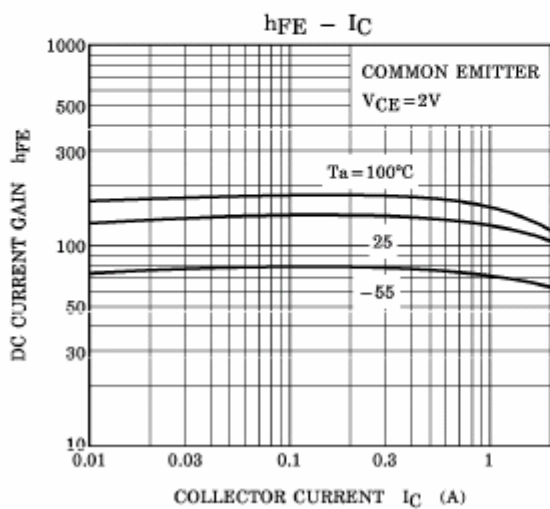
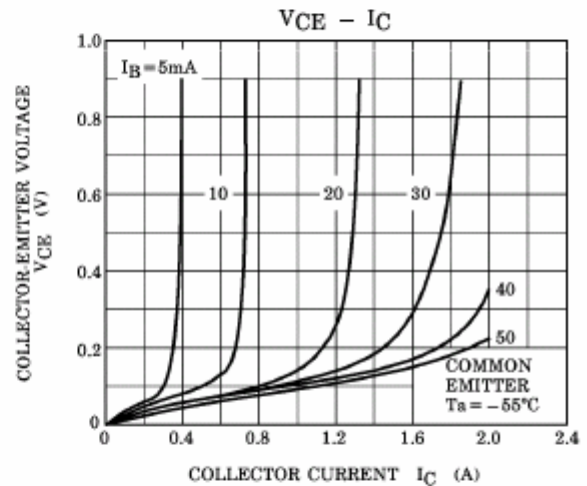
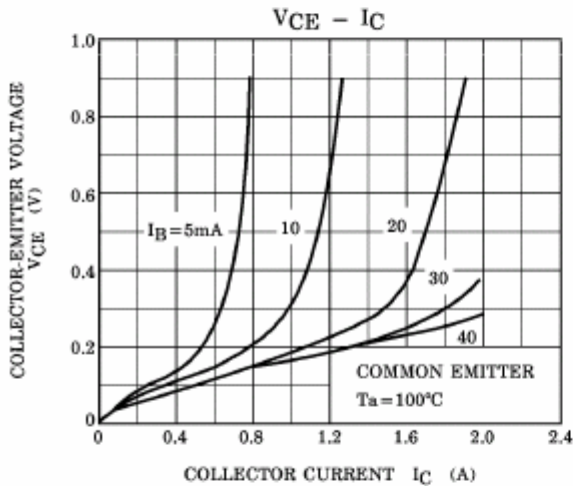
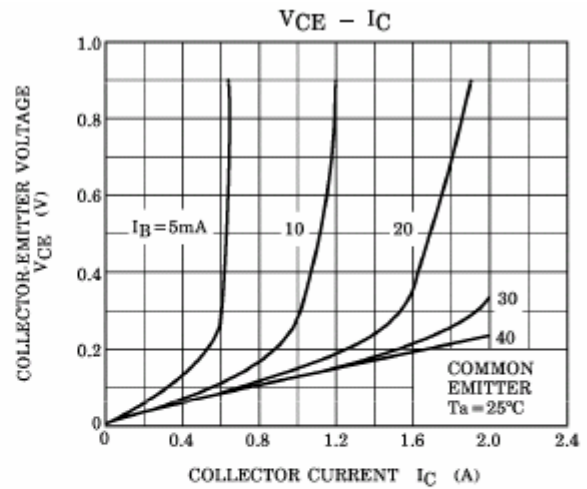
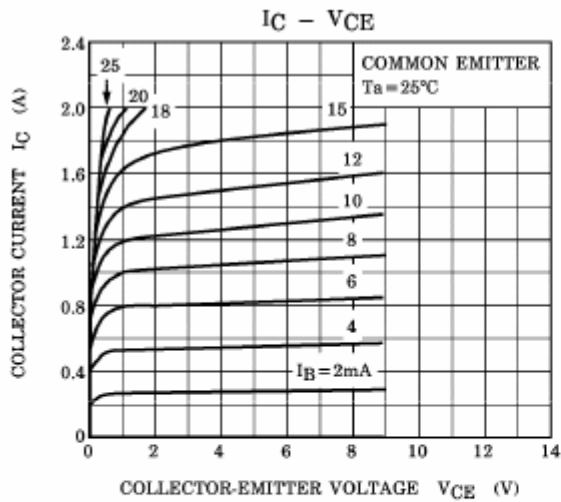
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			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}		0.15		μs
	Storage Time	t_{stg}	$V_{CC}=30V, I_C=1A,$ $I_{B1}=-I_{B2}=0.05A$	2		
	Fall Time	t_f		0.15		

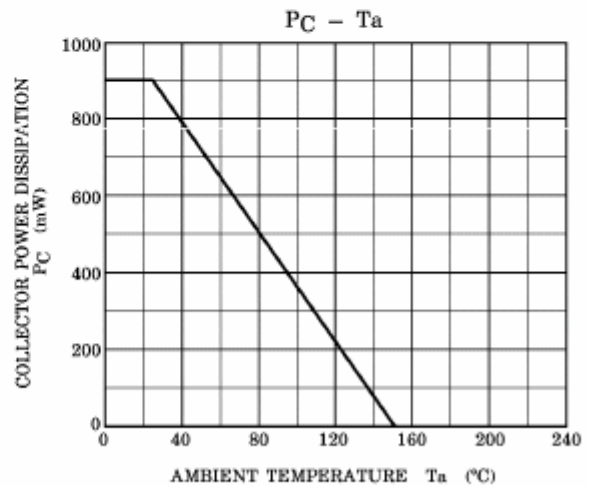
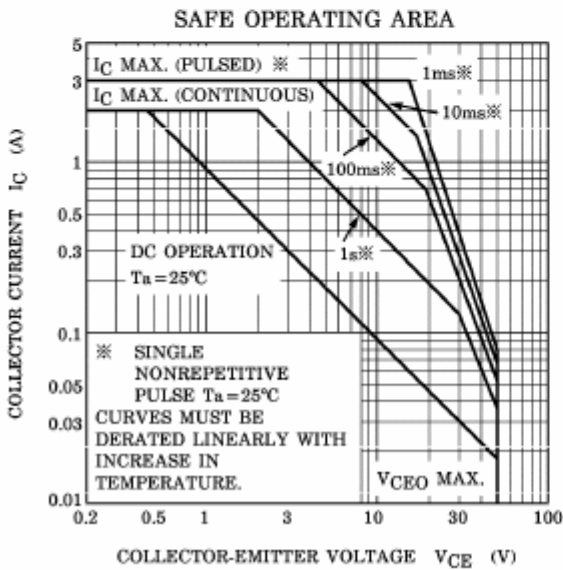
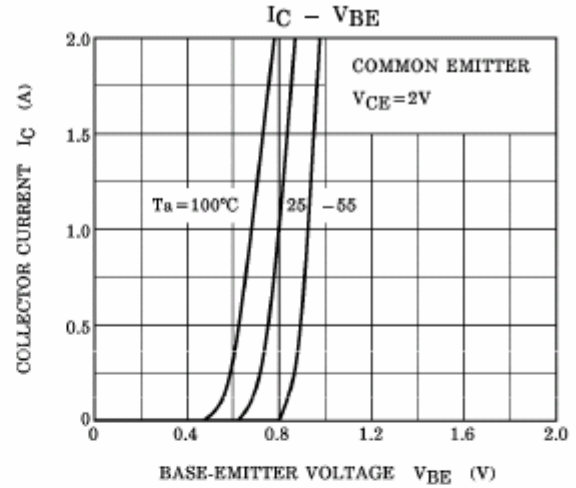
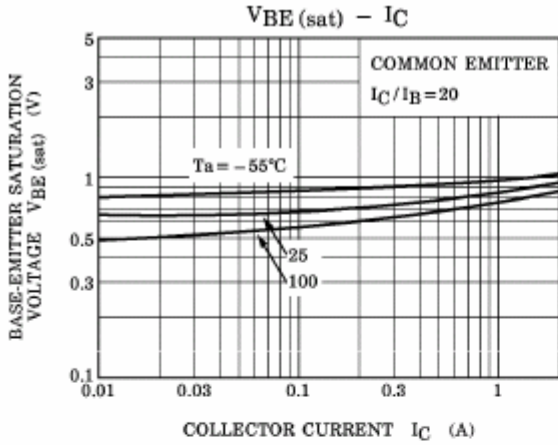
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240



Typical Characteristics





Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92L	Bulk	500pcs/Bag	5000pcs	245×170×100	50,000pcs	525×375×270
TO-92L	Tape	2000pcs/Tap	2000pcs	333×203×42	20,000pcs	493×400×264