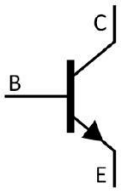
Silicon NPN transistor in a TO-92 Plastic Package.

High gain, good linearity of h_{FE}.

TV final picture IF amplifier applications.



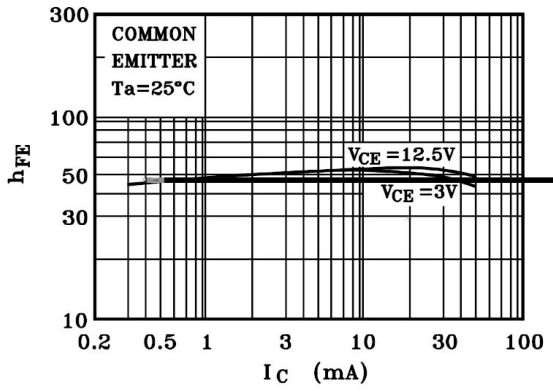
PIN1 Collector PIN 2 Emitter PIN 3 Base

See Marking Instructions.

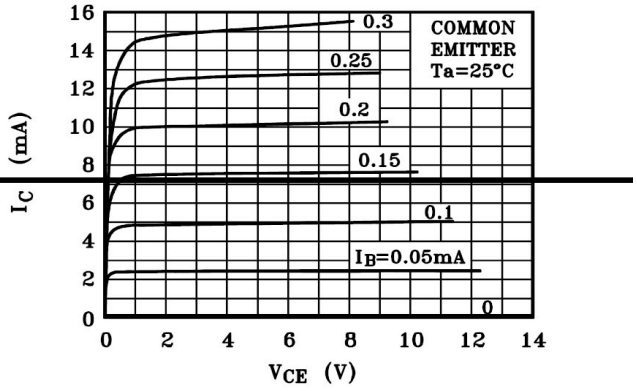
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current - Continuous	I_C	50	mA
Emitter Current - Continuous	I_E	-50	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55～150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	25			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.1	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			0.1	A
DC Current Gain	h_{FE}	V_{CE}=12.5V I_C=12.5mA	40		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=15mA I_B=1.5mA			0.2	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=15mA I_B=1.5mA			1.5	V
Transition Frequency	f_T	V_{CE}=12.5V I_C=12.5mA	300			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=30MHz	0.8		2.0	pF
Reverse Transfer Capacitance	C_{re}	V_{CC}=12.5V I_E=-12.5mA f=45MHz	28		36	dB
Collector- Base Time Constant	$Cc.r_{bb'}$	V_{CB}=10V I_E=-1.0mA f=30MHz			25	ps

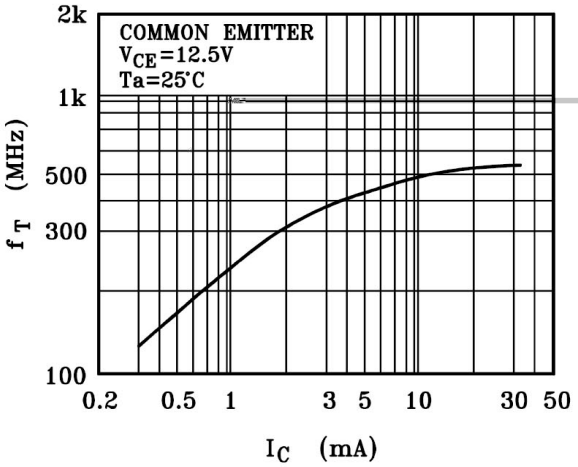
h_{FE} – I_C



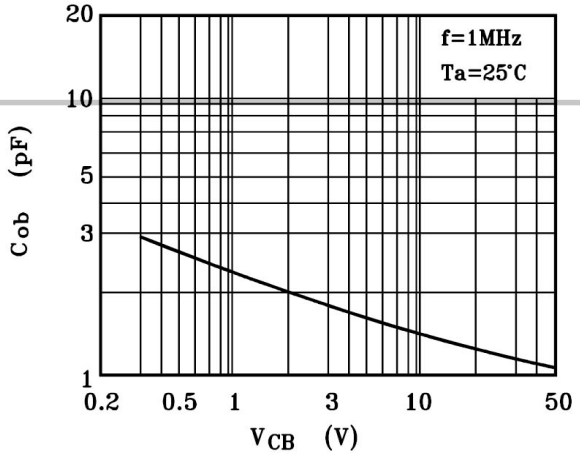
I_C – V_{CE}



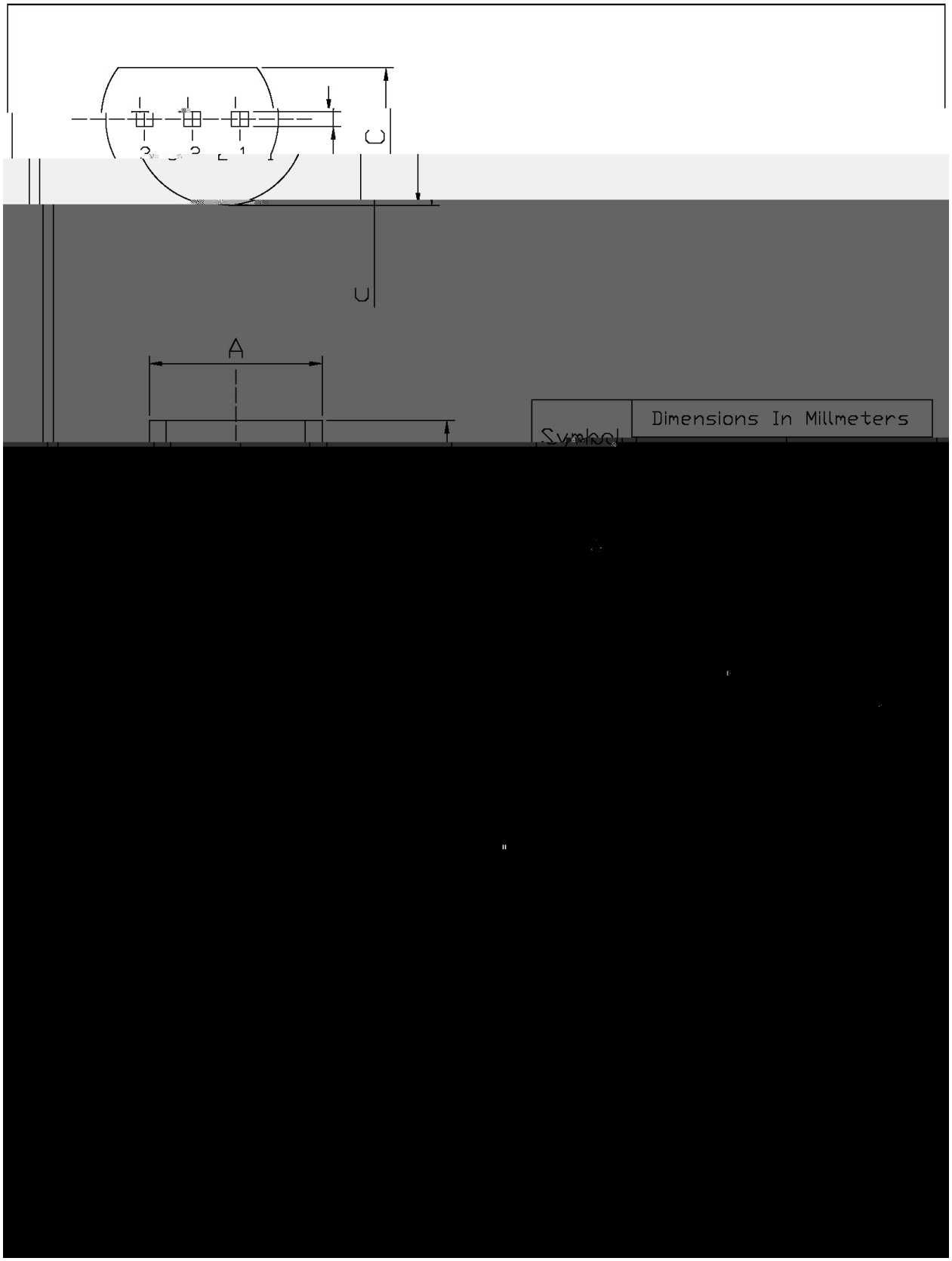
f_T – I_C

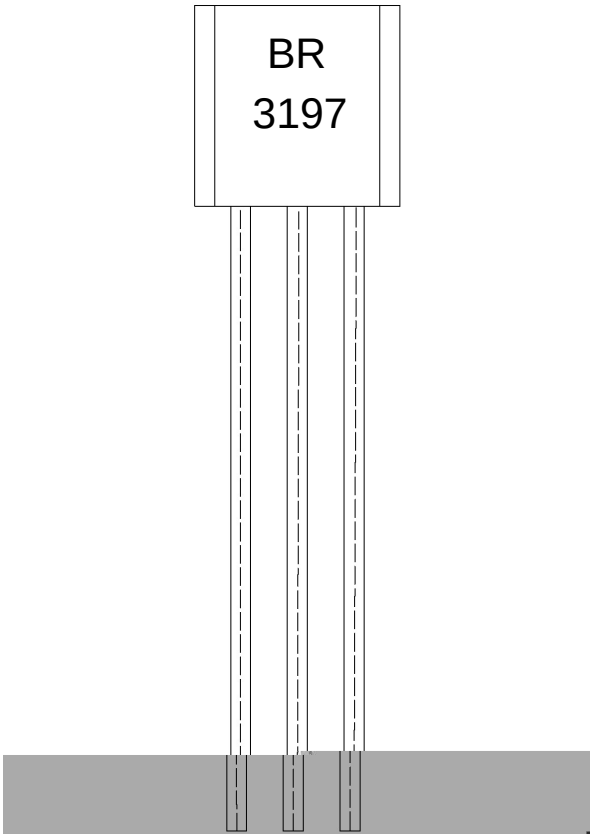


C_{ob} – V_{CB}



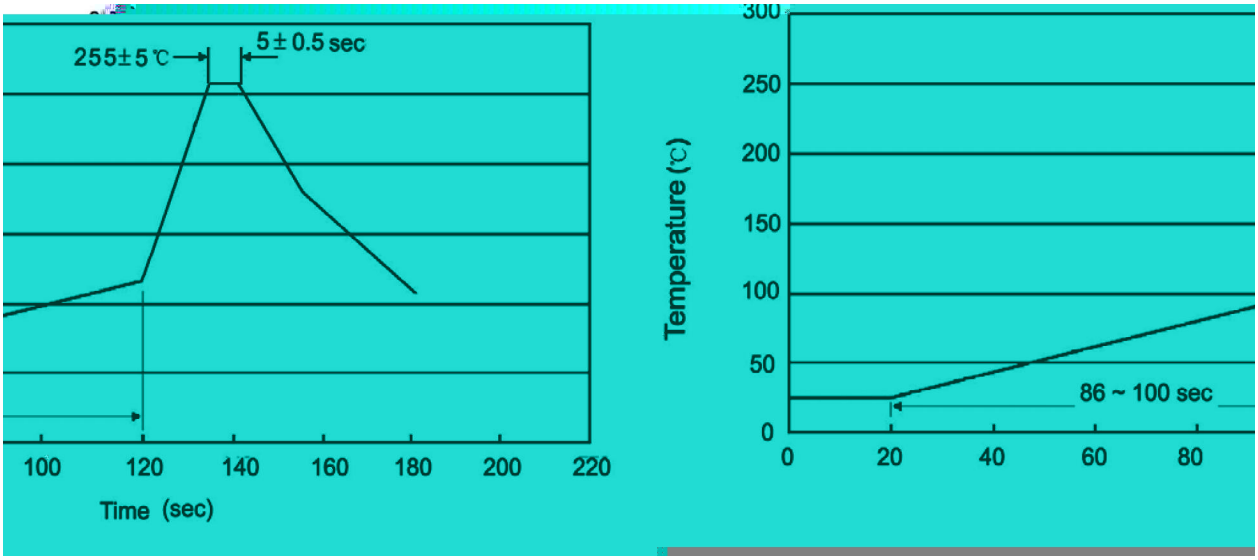
TO-92 Unit: mm





Note:

BR:	Company Code.
3197:	Product Type.
****:	Lot No. Code,code change with Lot No.



	Note:
1 25 150 60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2 255 5 5 0.5sec;	2.Peak Temp.:255 5 , Duration:5 0.5sec.
3 2 10 /sec.	3. Cooling Speed: 2~10 /sec.

270 5 10 1 sec. Temp:270±5 Time:10±1 sec

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	只 袋	袋 盒	只 盒	盒 箱	只 箱	袋	盒	箱

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	只 纸带	纸带 盒	纸带层 盒	盒 箱	只 箱	盒	箱
							小箱 ， 大箱