

/ Descriptions

Silicon NPN transistor in a TO-92LM Plastic Package.

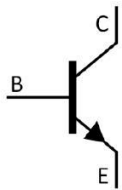
/ Features

Low saturation voltage, high speed switching time, complementary to 2SA1020.

/ Applications

Power amplifier and switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

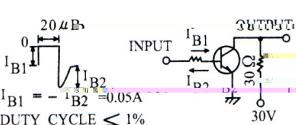
/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	O	Y	G
h_{FE} Range	70~140	120~240	200-400

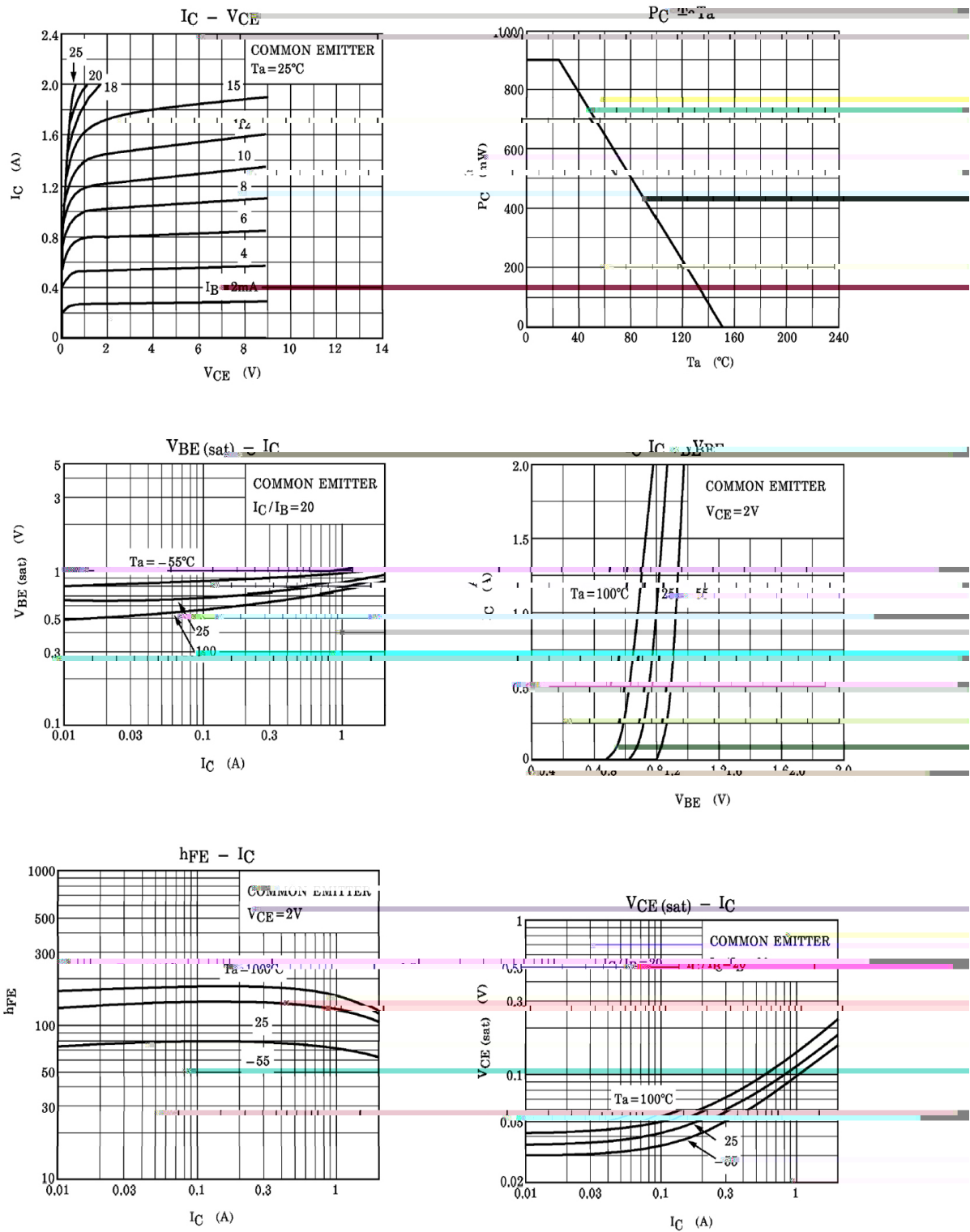
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current (DC)	I_C	2.0	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =10mA	I _B =0	50			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =50V	I _E =0			1.0	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =5.0V	I _C =0			1.0	μA
DC Current Gain	h _{FE(1)}	V _{CE} =2.0V	I _C =0.5A	70		400	
	h _{FE(2)}	V _{CE} =2.0V	I _C =1.5A	40			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =1.0A	I _B =0.05A			0.5	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _C =1.0A	I _B =0.05A			1.2	V
Transition Frequency	f _T	V _{CE} =2.0V	I _C =0.5A	50	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V f=1.0MHz	I _E =0		30	45	pF
Turn-On Time	t _{on}	 开关时间测试电路			0.1		μs
Turn-Off Time	t _f				0.1		μs
Storage Time	t _{stg}					1.0	

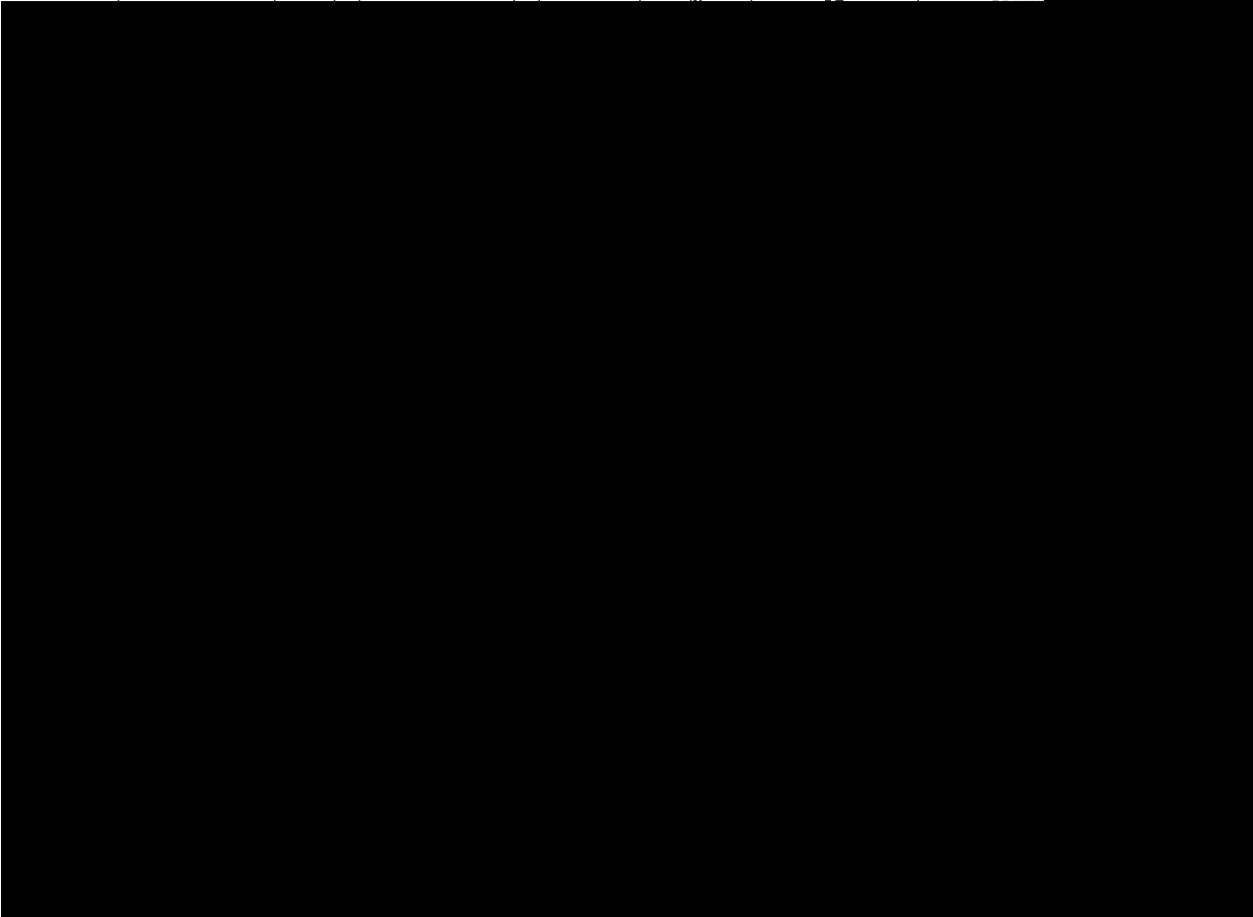
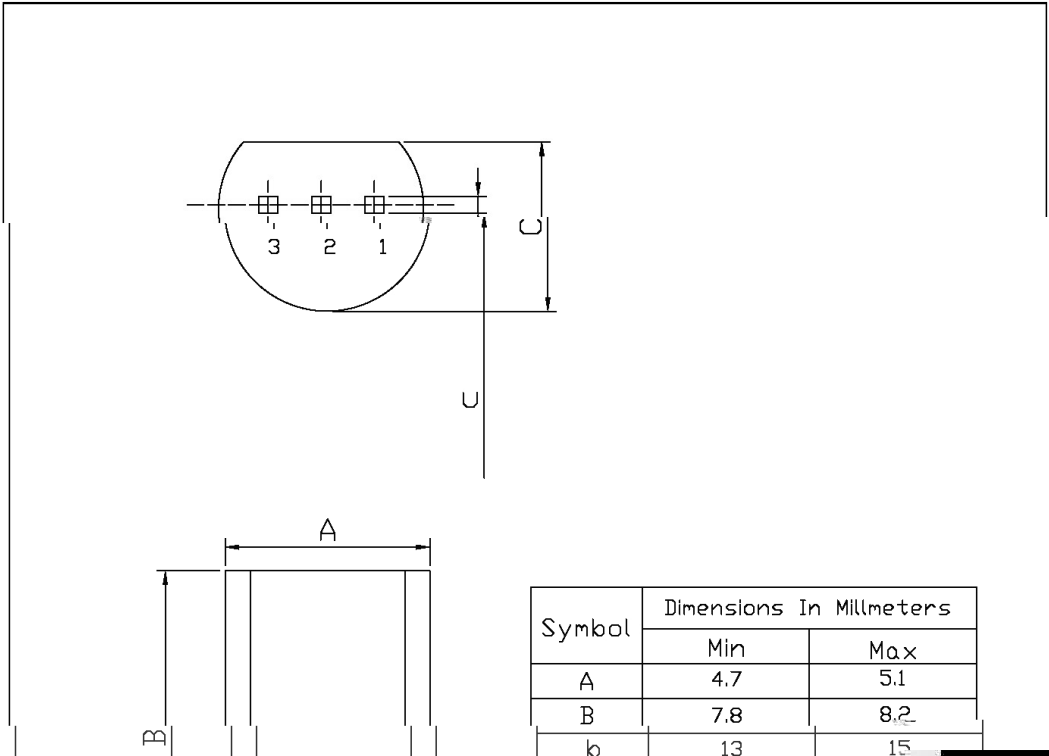
/ Electrical Characteristic Curve



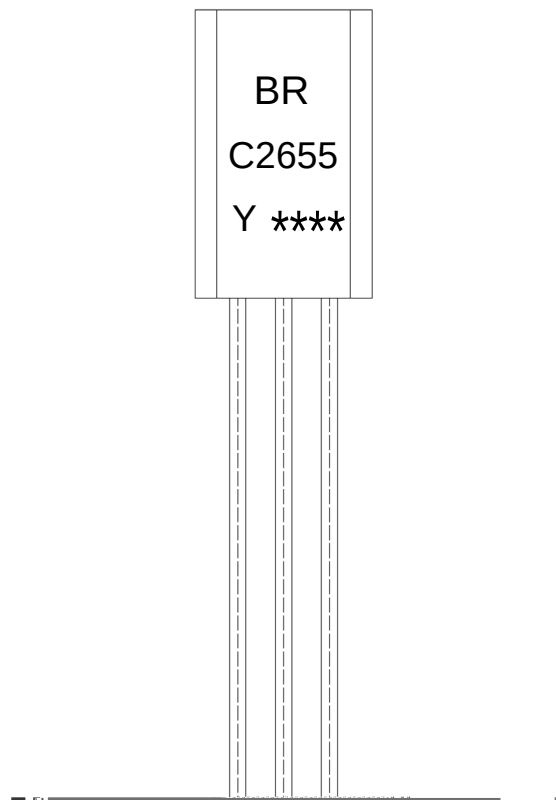
/ Package Dimensions

T0-92LM

Unit: mm



/ Marking Instructions



Note:

BR: Company Code.

C2655: Product Type.

Y: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



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. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-92LM	1,000	8	8,000	5	40,000	135×190	237×172×102	560×245×195

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/tape 只/纸带	Tape/Inner Box 纸带/盒	Rows/Inner Box 纸带层/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Inner Box 盒	Outer Box 箱
TO-92LM	2,500	1	100	10	25,000	328×230×42	小箱 480×346×235 大箱 547×407×268

/ Notices