

2SD1862
Rev.E Mar.-2016

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

Low V_{CE} , 2SB1240

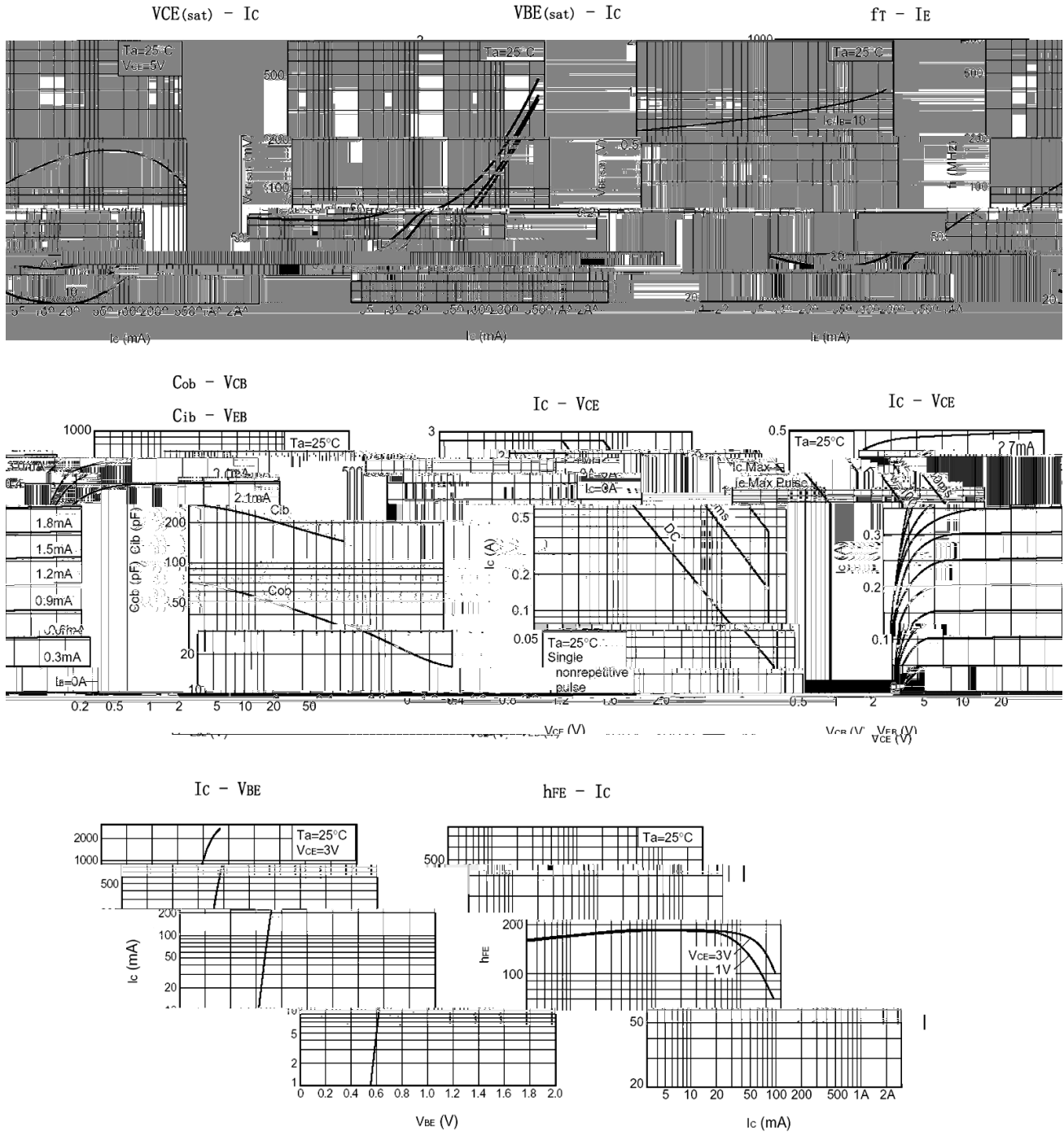
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	32	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current (DC)	I_C	2.0	A
Collector Current (Pulse)	I_{CP}	2.5	A
Collector Power Dissipation	P_C	1.0	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\text{ A}$ $I_B=0$	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$ $I_B=0$	32			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\text{ A}$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20\text{V}$ $I_E=0$			1.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0\text{V}$ $I_C=0$			1.0	A
DC Current Gain	h_{FE}	$V_{CE}=3.0\text{V}$ $I_C=0.5\text{A}$	120		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0\text{A}$ $I_B=0.2\text{A}$		0.5	0.8	V
Transition Frequency	f_T	$V_{CE}=5.0\text{V}$ $f=100\text{MHz}$ $I_C=50\text{mA}$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$ $f=1.0\text{MHz}$ $I_E=0$		30		pF

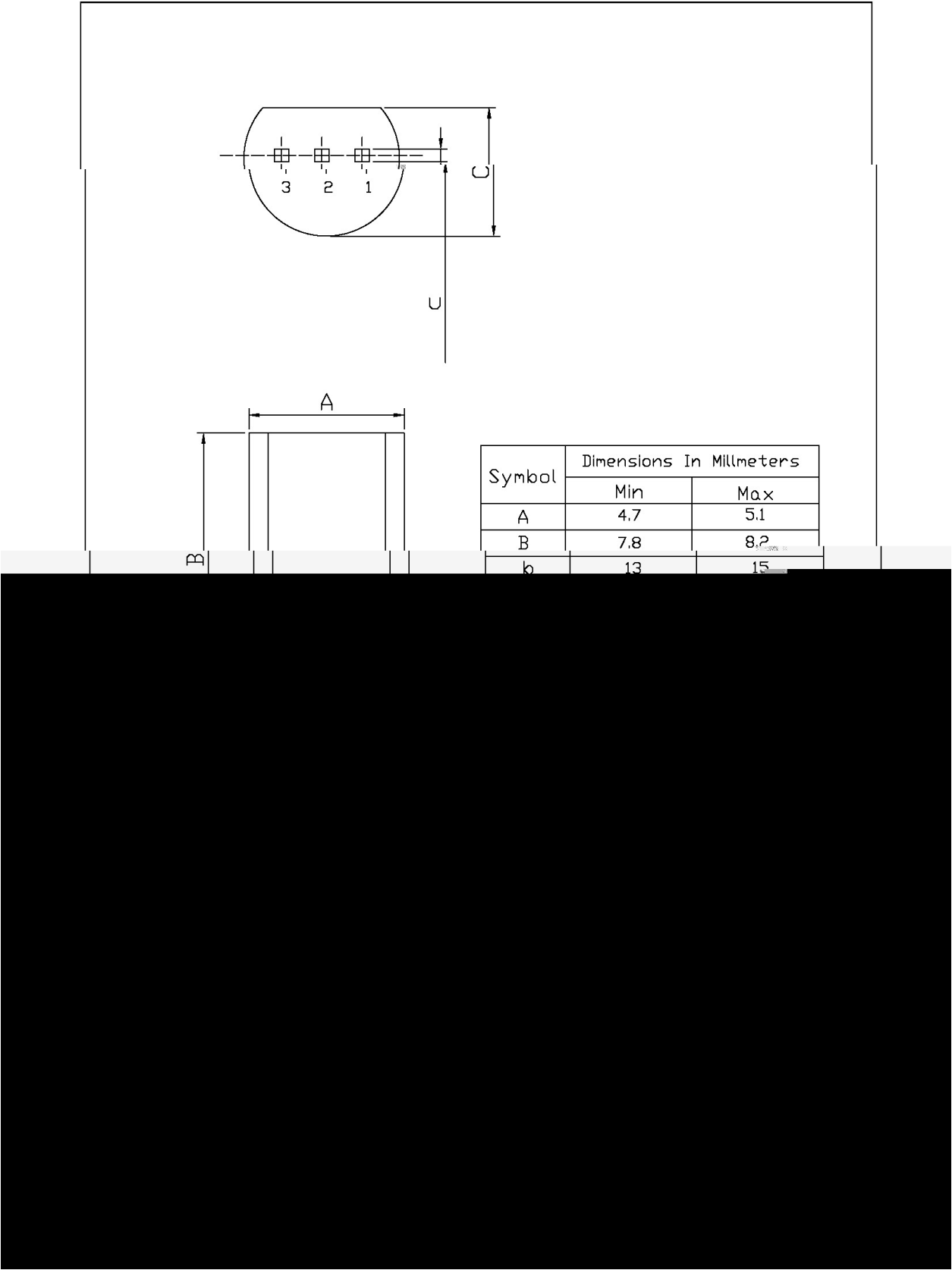
/ Electrical Characteristic Curve



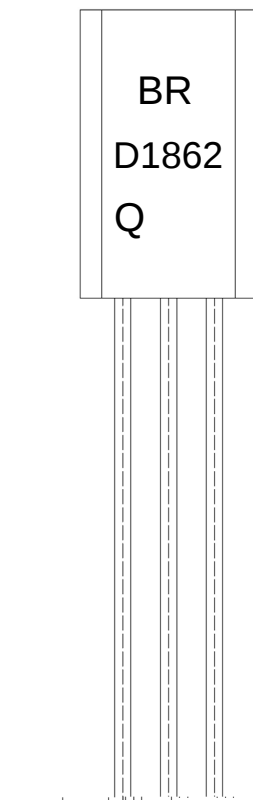
/ Package Dimensions

T0-92LM

Unit: mm



/ Marking Instructions



BR:

D1862

Q

h_{FE}

Note:

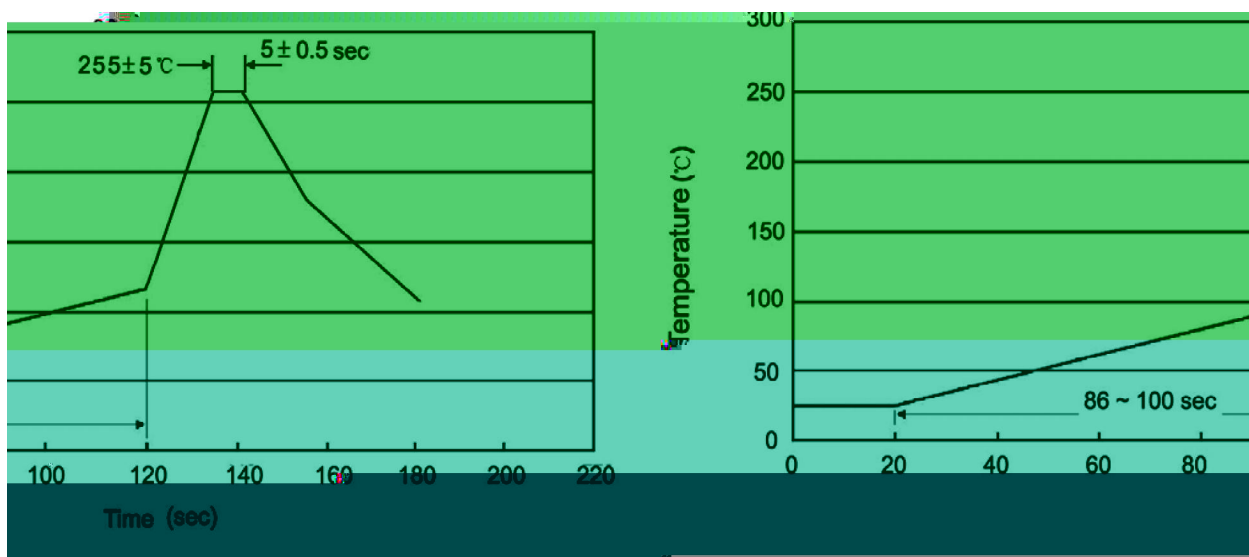
BR: Company Code.

D1862: Product Type.

Q: 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)		
	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

/ Notices