

/ Descriptions

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

/ Features

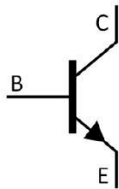
Satisfactory linearity of forward current transfer ratio h_{FE} , High collector to emitter Voltage V_{CEO} , Small collector output capacitance C_{ob} .

/ Applications

2SA1124

For low-frequency high breakdown voltage amplification complementary to 2SA1124.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	S
h_{FE} Range	130~220	185~330

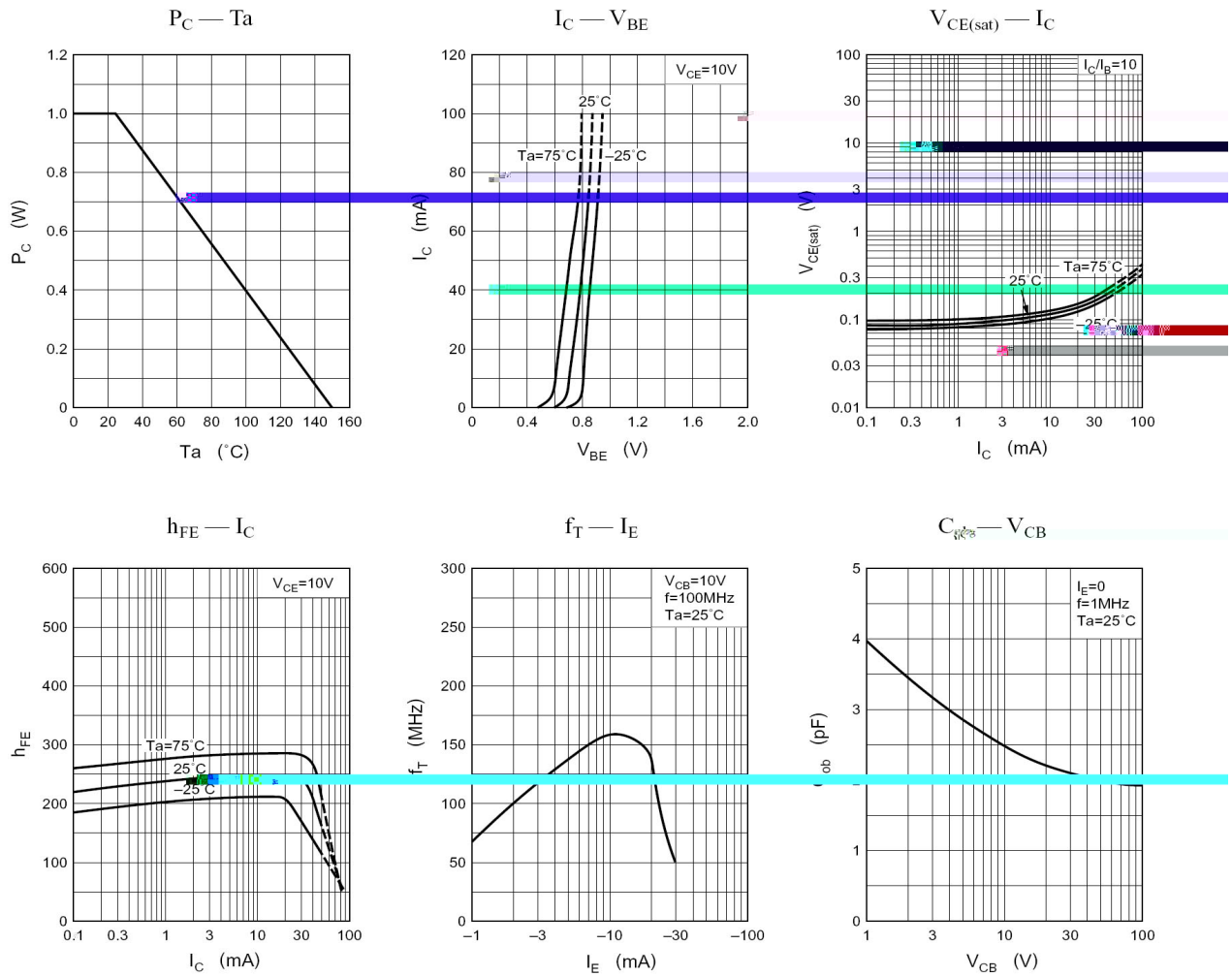
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	150	V
Collector to Emitter Voltage	V_{CEO}	150	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	50	mA
Collector Current (Pulse)	I_{CP}	100	mA
Collector Power Dissipation	P_C	1	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 Emitter Breakdown Voltage	V_{CEO}	$I_C=0.1mA$ $I_B=0$	150			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=100V$ $I_E=0$			1	μA
DC Current Gain	h_{FE}	$V_{CE}=5V$ $I_C=10mA$	130		330	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=3mA$			1	V
Transition Frequency	f_T	$V_{CB}=10V$ $I_E=-10mA$ $f=200MHz$		160		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1MHz$			3	pF
Noise Voltage	NV	$V_{CE}=10V$ $I_C=1mA$ $G_v=80dB$ $R_g=100k\Omega$ Function=FLAT		150	300	mV

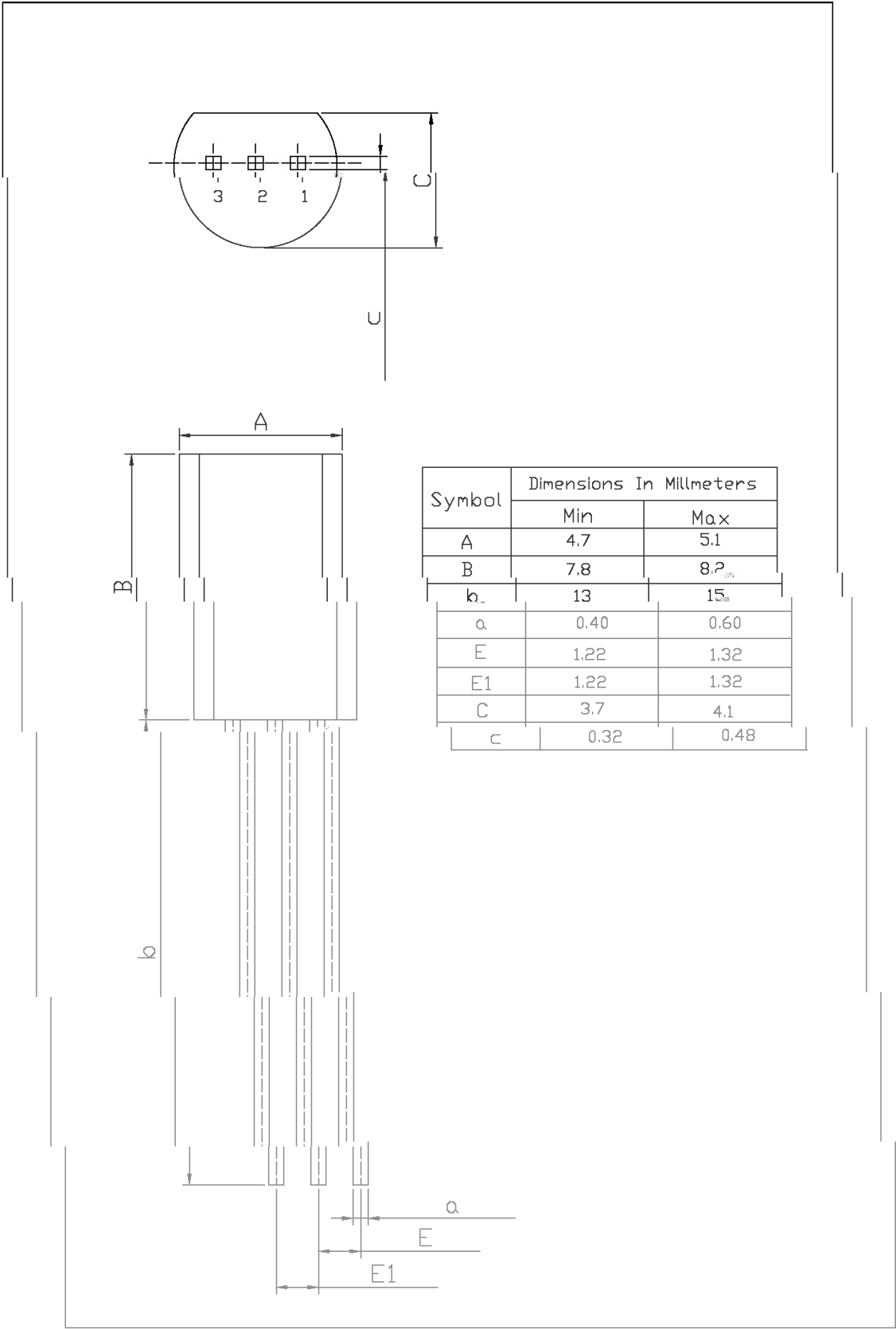
/ Electrical Characteristic Curve



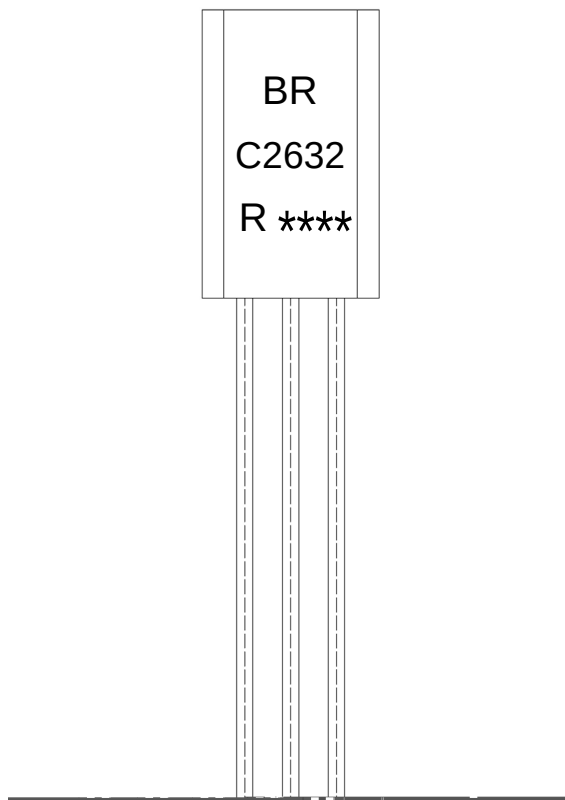
/ Package Dimensions

T0-92LM

Unit: mm



/ Marking Instructions



BR:

C2632

R: h_{FE}

Note:

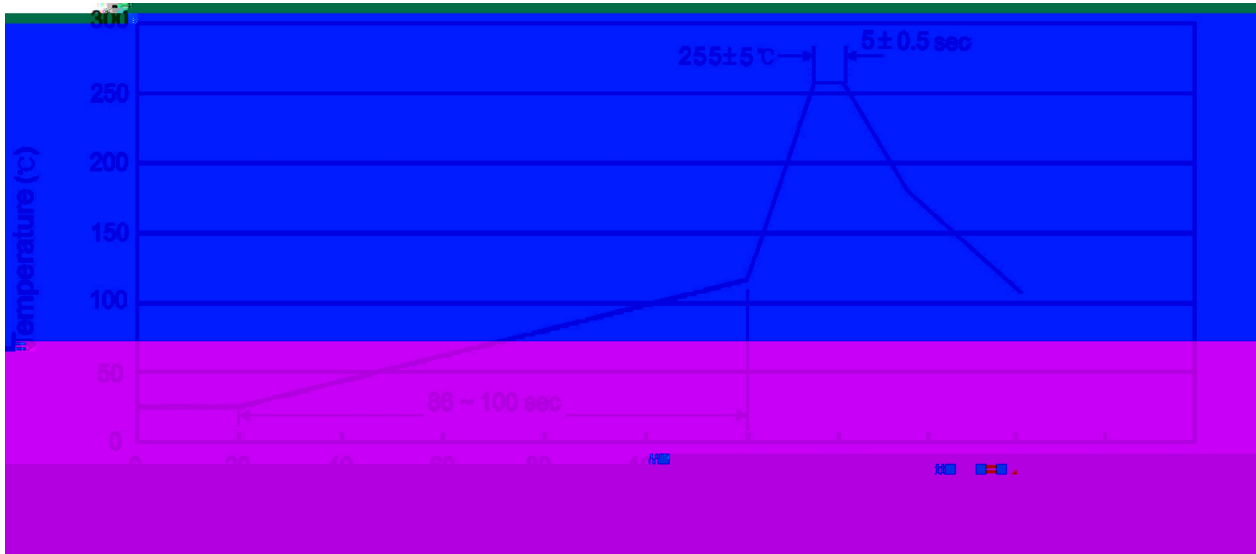
BR: Company Code.

C2632: Product Type.

R: 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	Units					Dimension (unit mm3)		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-92LM	1,000	8	8,000	5	40,000	135×190	237×172×102	560×245×195

/ AMMO

Package Type	Units					Dimension (unit mm3)	
	Units/tape	Tape/Inner Box	Rows/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Inner Box	Outer Box
TO-92LM	2,500	1	100	10	25,000	328×230×42	480×346×235 547×407×268

/ Notices