

/ Descriptions

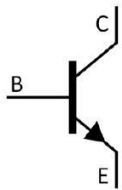
TO-92LM NPN Silicon NPN transistor in a TO-92LM Plastic Package.

/ Features

V_{CEO} , 2SA1013
High V_{CEO} , complementary pair with 2SA1013.

/ Applications

Color TV class B sound output applications..



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

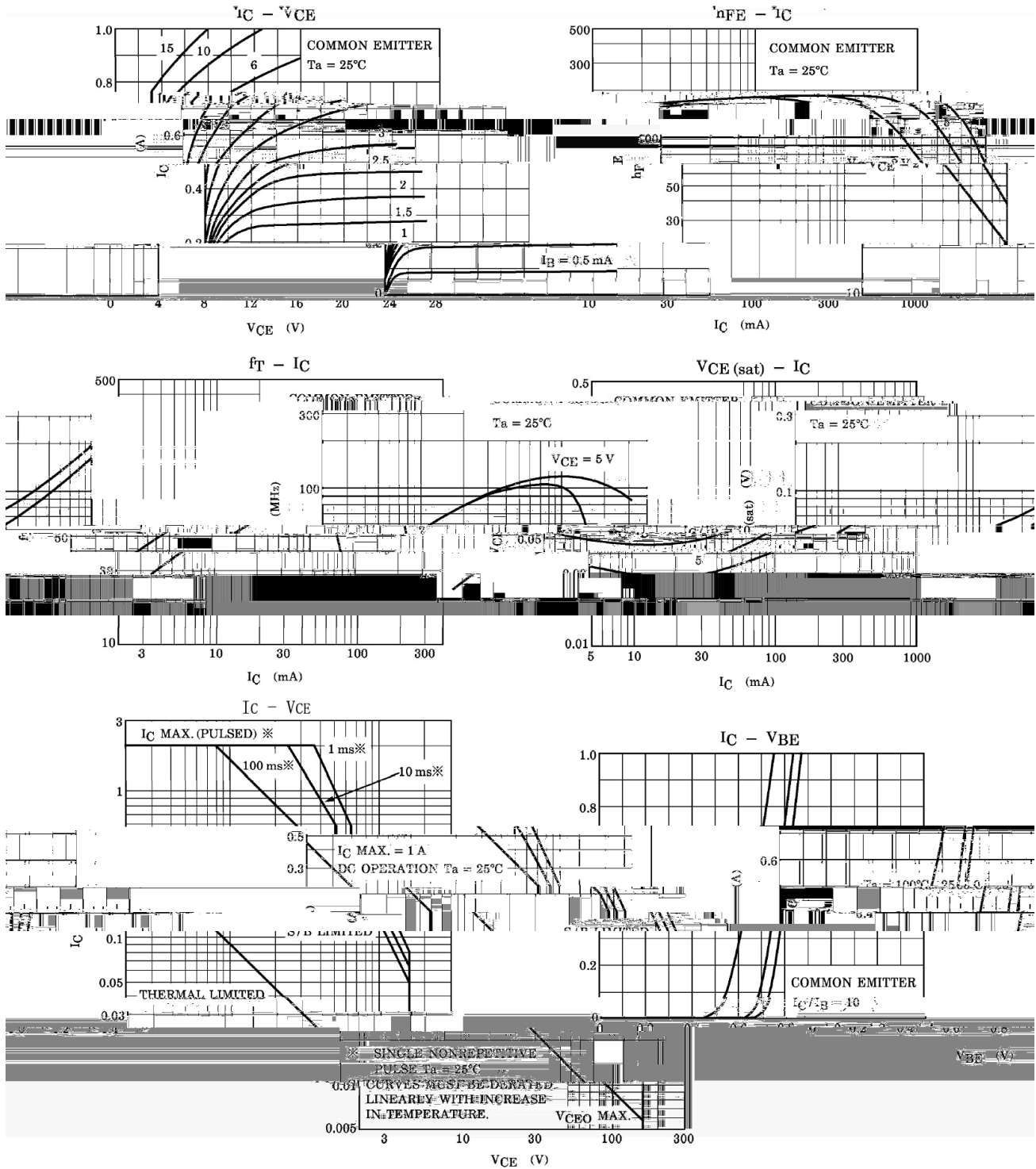
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	160	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current (DC)	I_C	1.0	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	900	mW
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}	$I_C=10mA$ $I_B=0$	160			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100 A$ $I_B=0$	160			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=150V$ $I_E=0$			1.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			1.0	A
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=200mA$	60		320	
Base to Emitter Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=5.0mA$	0.45		0.75	V
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$			1.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$			1.2	V
Transition Frequency	f_T	$V_{CE}=5.0V$ $I_C=200mA$	20	100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$ $I_E=0$			20	pF

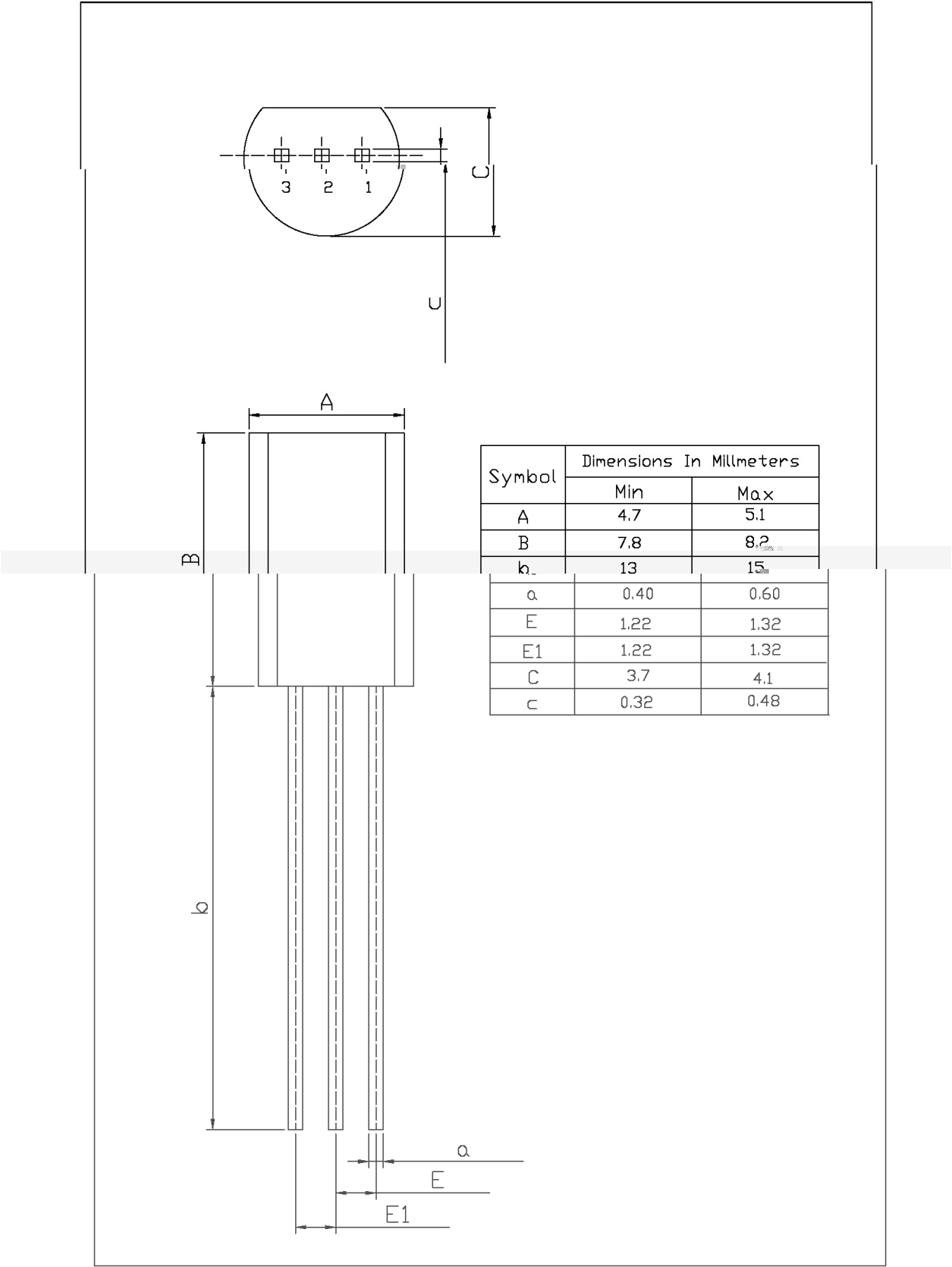
/ Electrical Characteristic Curve

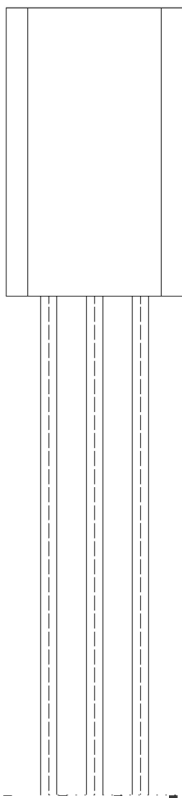


/ Package Dimensions

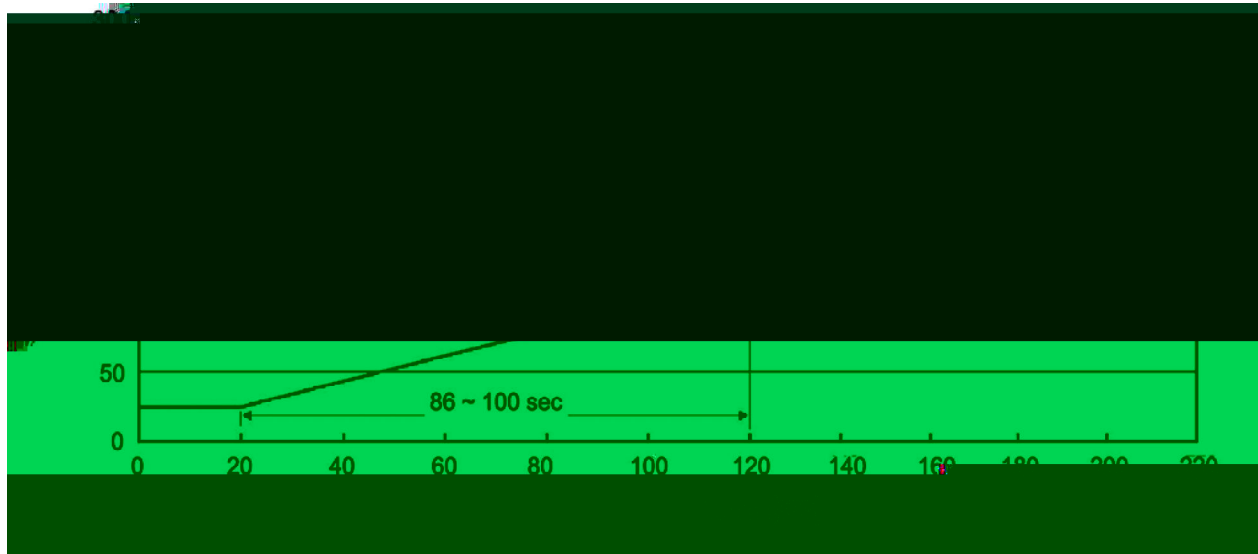
TO-92LM

Unit: mm





() / 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)

/ AMMO

Package Type	Units					Dimension		(unit mm3)

/ Notices