

/ Descriptions

TO-92(R) NPN Silicon NPN transistor in a TO-92(R) Plastic Package.

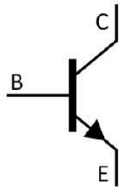
/ Features

High voltage, high current, excellent h_{FE} linearity, low noise, complementary to ED1602.

/ Applications

Audio frequency amplifier, driver stage amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B	C	D	E
h_{FE} Range	110~165	150~225	202~		

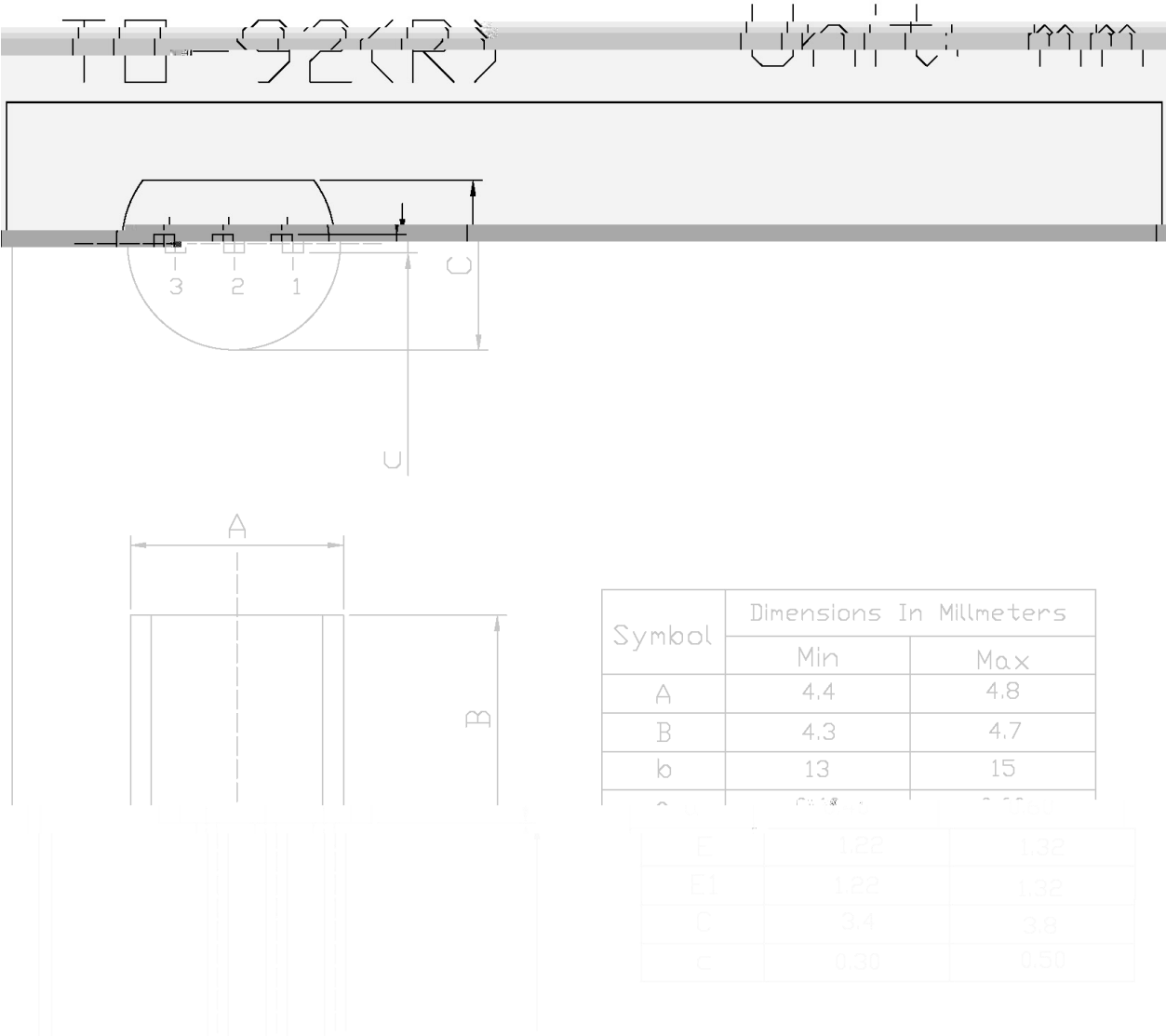
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	28	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	200	mA
Base Current - Continuous	I_B	200	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

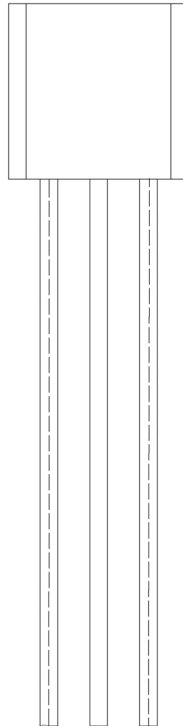
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO(1)}$	$V_{CB}=30V$ $I_E=0$			0.015	μA
	$I_{CBO(2)}$	$V_{CB}=30V$ $I_E=0$ $T_j=150^{\circ}C$			5.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=2.0mA$	110		810	
Base-Emitter Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=2.0mA$			0.77	V
Current Gain Bandwidth Product	f_T	$V_{CE}=10V$ $I_C=1.0mA$ $f=100MHz$	100			MHz
Collector Capacitance	C_c	$V_{CB}=10V$ $I_E=i_e=0$ $f=1.0MHz$			5.0	pF

/ Package Dimensions



/ Marking Instructions



BR

1402

A

h_{FE}

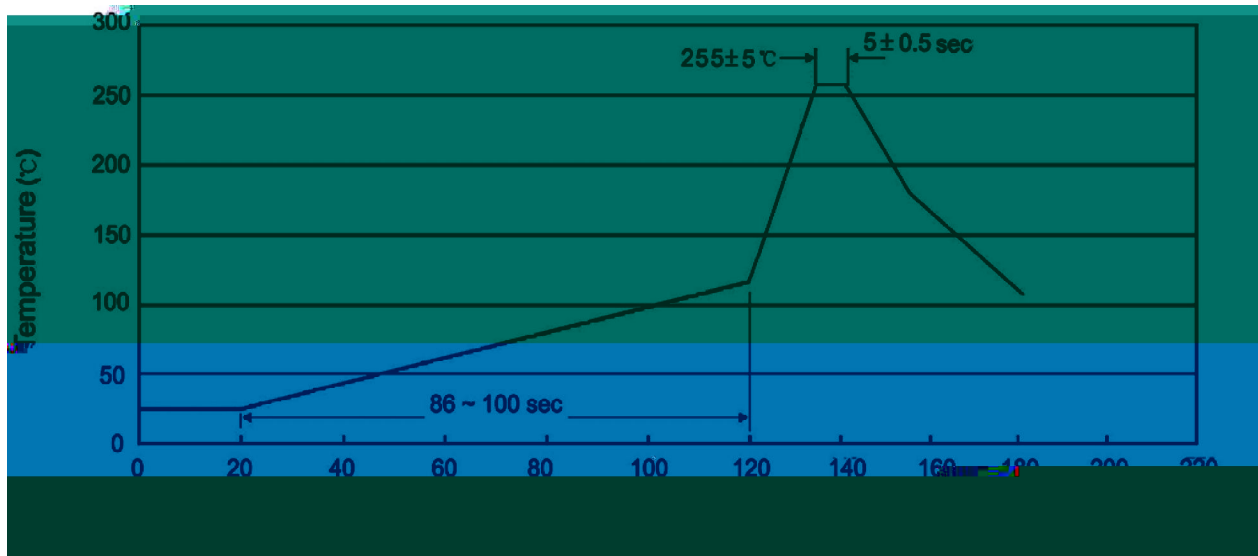
Note:

BR: Company Code.

1402: Product Type.

A h_{FE} Classifications Symbol

() / 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