

**/ Descriptions**

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~		

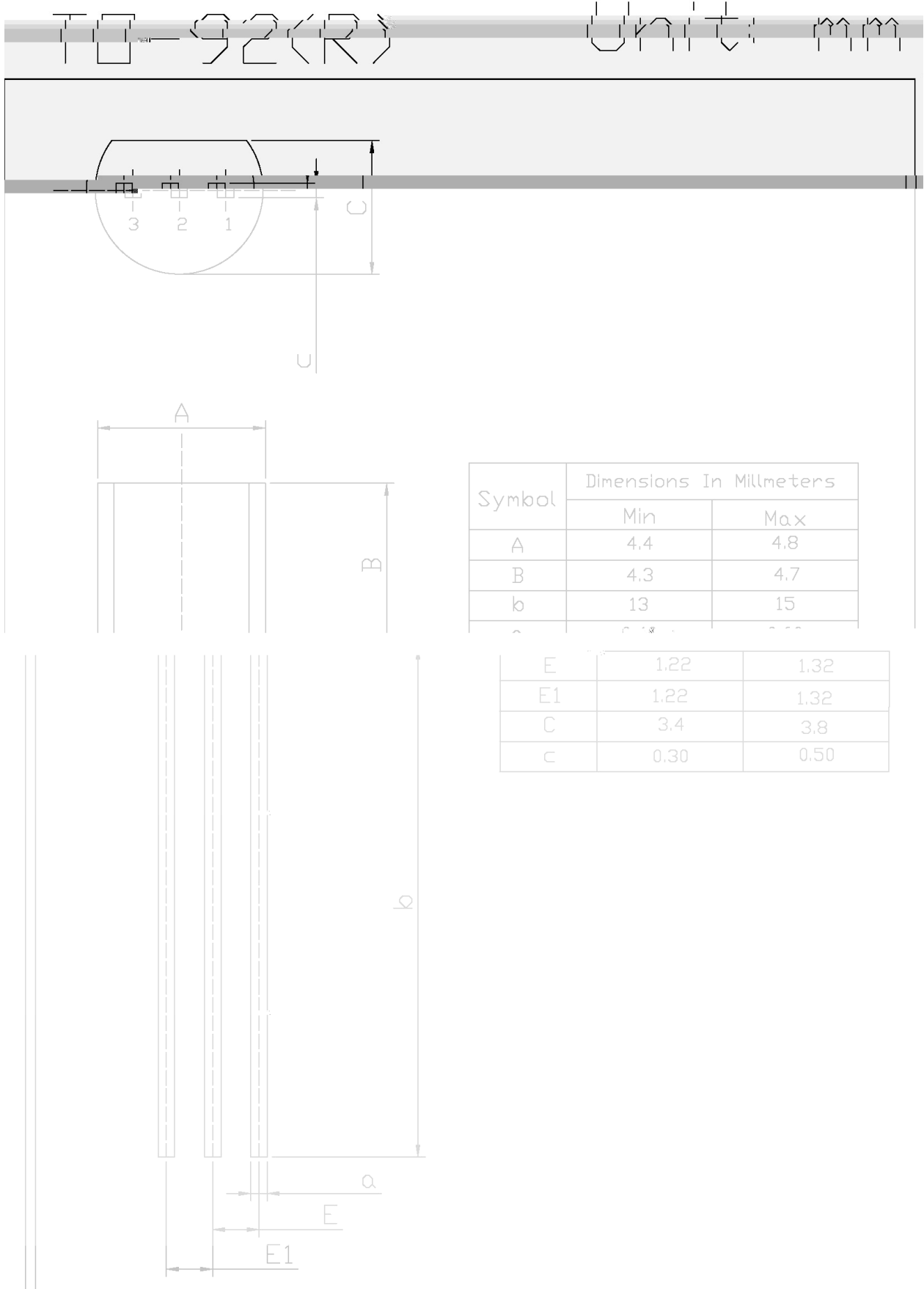
**/ Absolute Maximum Ratings(Ta=25 )**

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	$\mu A$
	$I_{CBO(2)}$	$V_{CB}=30V$ $I_E=0$ $T_j=150^\circ C$			5.0	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			0.1	$\mu A$
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	$f_T$	$V_{CE}=10V$ $f=100MHz$ $I_C=1.0mA$	100			MHz
Collector Capacitance	$C_c$	$V_{CB}=10V$ $f=1.0MHz$ $I_E=i_e=0$			5.0	pF

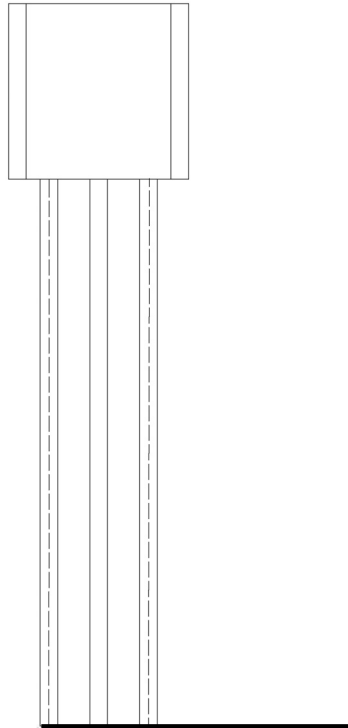
**/ Package Dimensions**



Symbol	Dimensions In Millimeters	
	Min	Max
A	4.4	4.8
B	4.3	4.7
b	13	15

E	1.22	1.32
E1	1.22	1.32
C	3.4	3.8
c	0.30	0.50

/ Marking Instructions



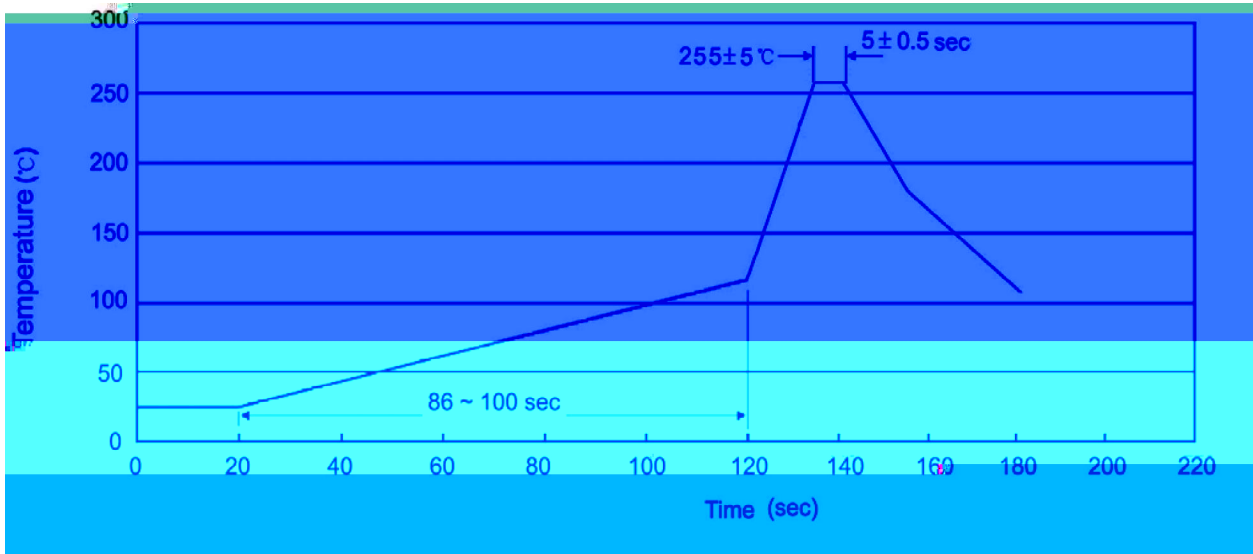
Note:

BR: Company Code.

1402: Product Type.

A  $h_{FE}$  Classifications 3126 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