

/ Descriptions

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

/ Features

2SA1150
High DC current gain, complementary pair with 2SA1150.

/ Applications

Audio amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

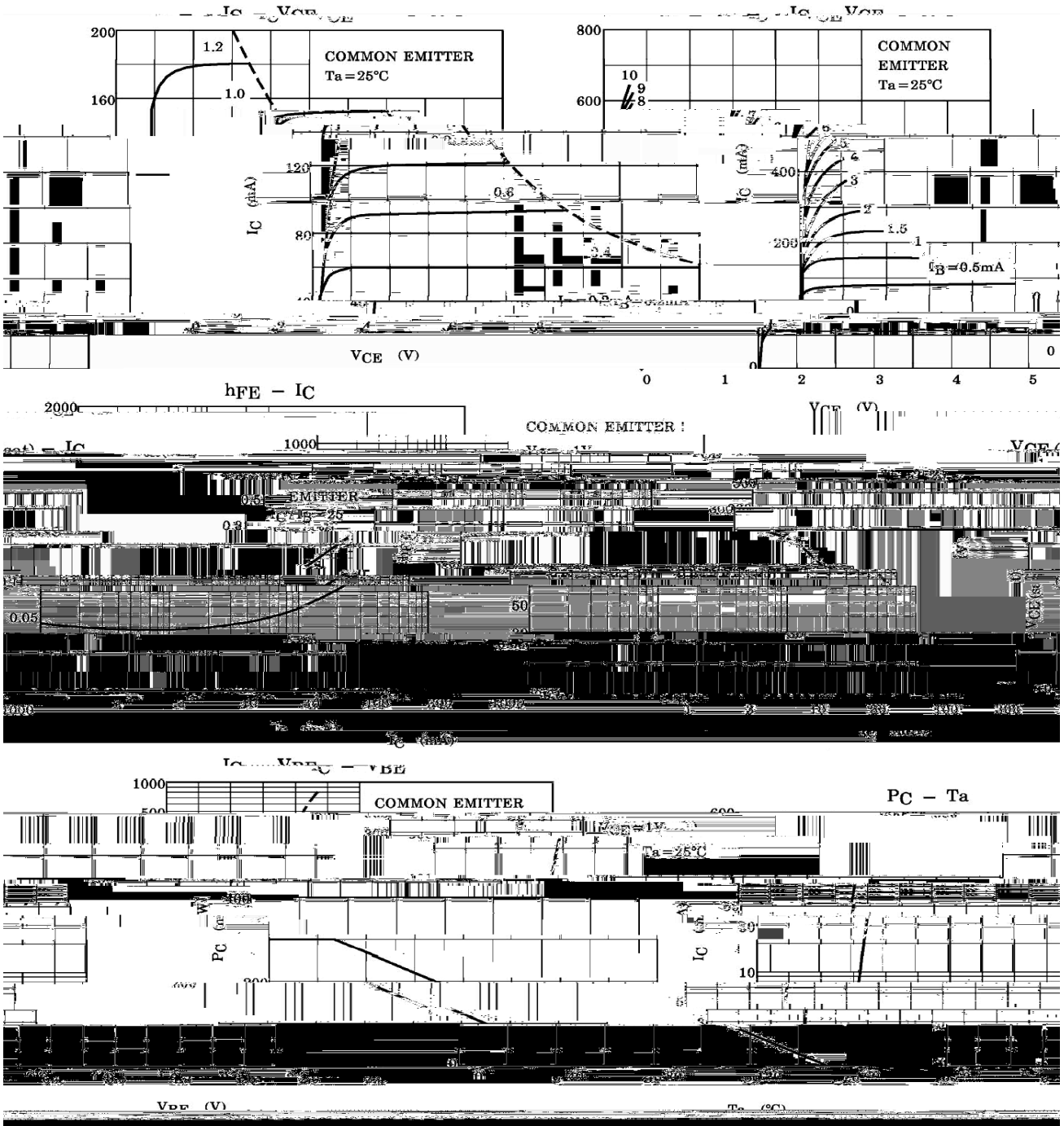
h _{FE} Classifications Symbol	O	Y
h _{FE} Range	100~200	160~320

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	800	mA
Base Current - Continuous	I_B	160	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	30			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.1	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	100		320	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=700mA$	35			
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=20mA$			0.5	V
Base-to-Emitter Voltage	V_{BE}	$V_{CE}=1.0V$ $I_C=10mA$	0.5		0.8	V

CE

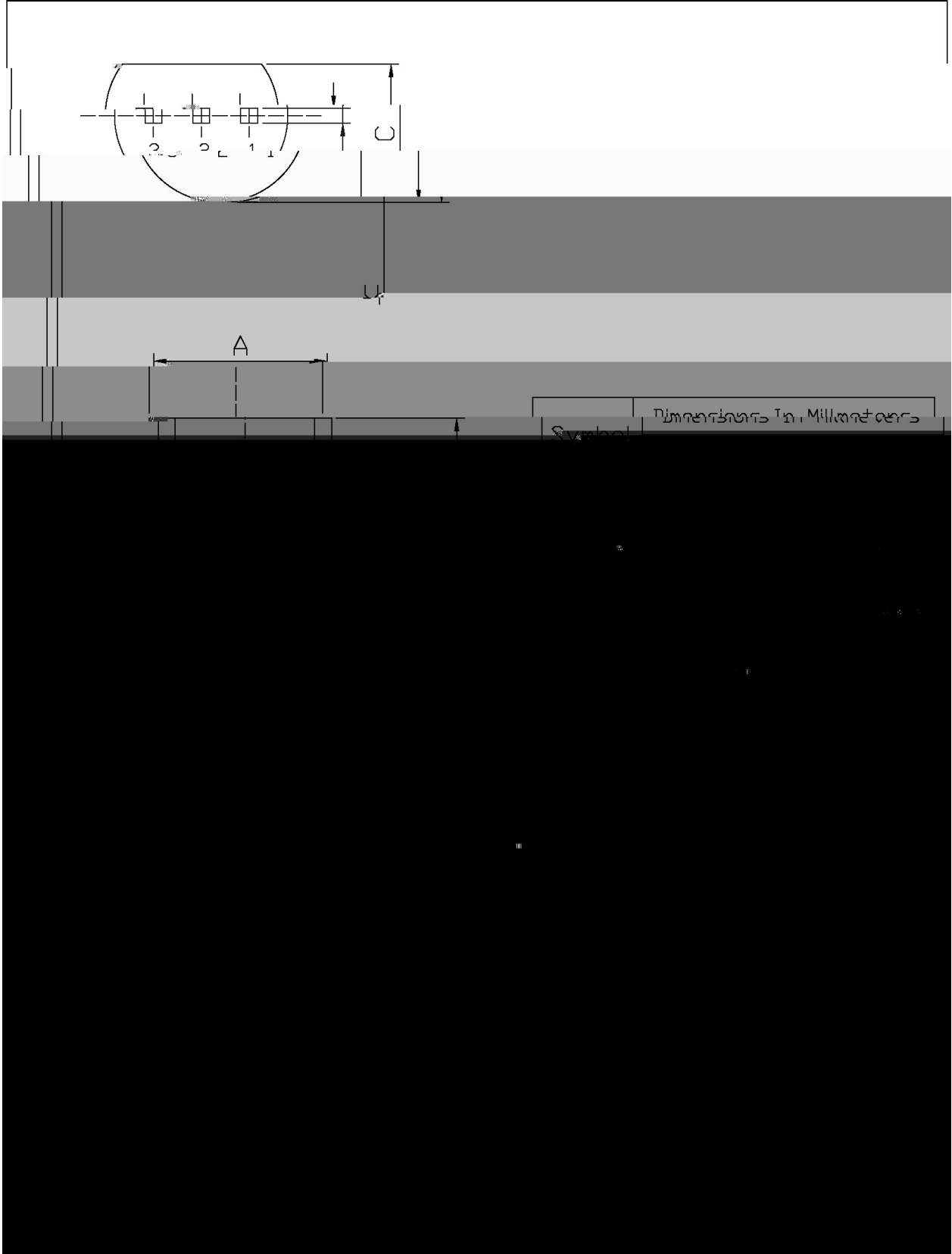
/ Electrical Characteristic Curve



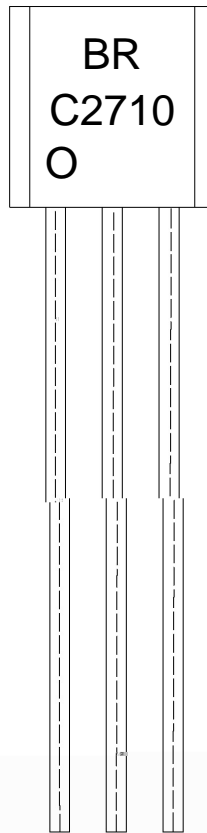
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR:

C2710

O: h_{FE}

Note:

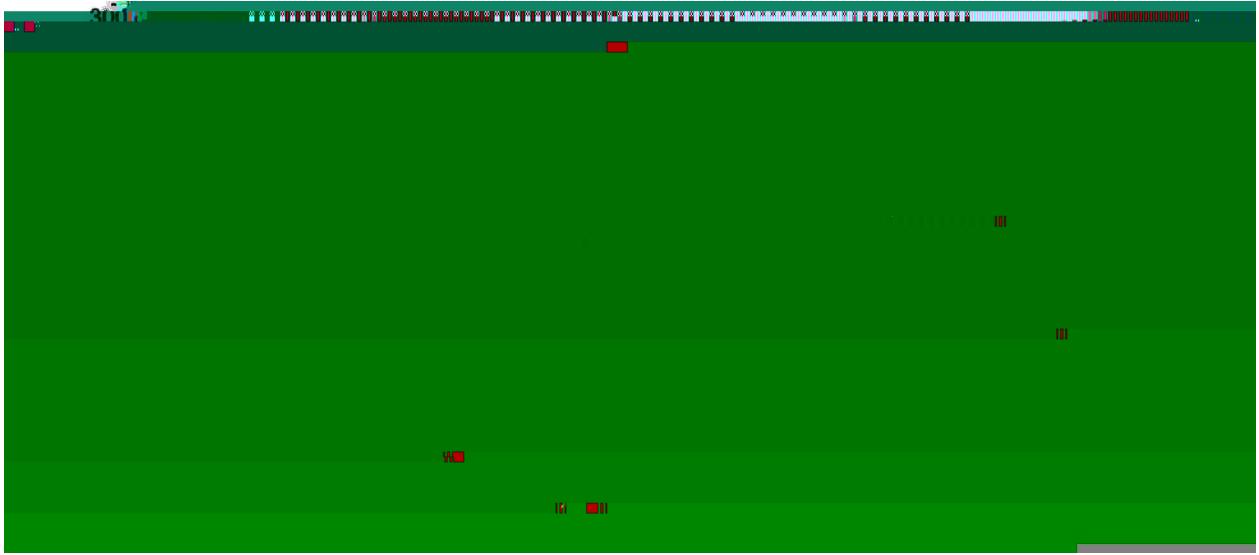
BR: Company Code.

C2710: Product Type.

O: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



1	25	150	60	90sec;	Note:	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)
----------------------	------------	----------------------------