

/ Descriptions

TO-220 PNP Silicon PNP transistor in a TO-220 Plastic Package.

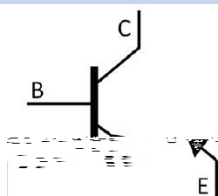
/ Features

2SC2344
Complementary pair with 2SC2344.

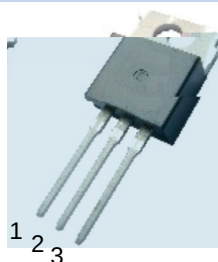
/ Applications

100W
High voltage switching, AF power amplifier, 100W output predriver applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	D	E
h_{FE} Range	60 120	100 200

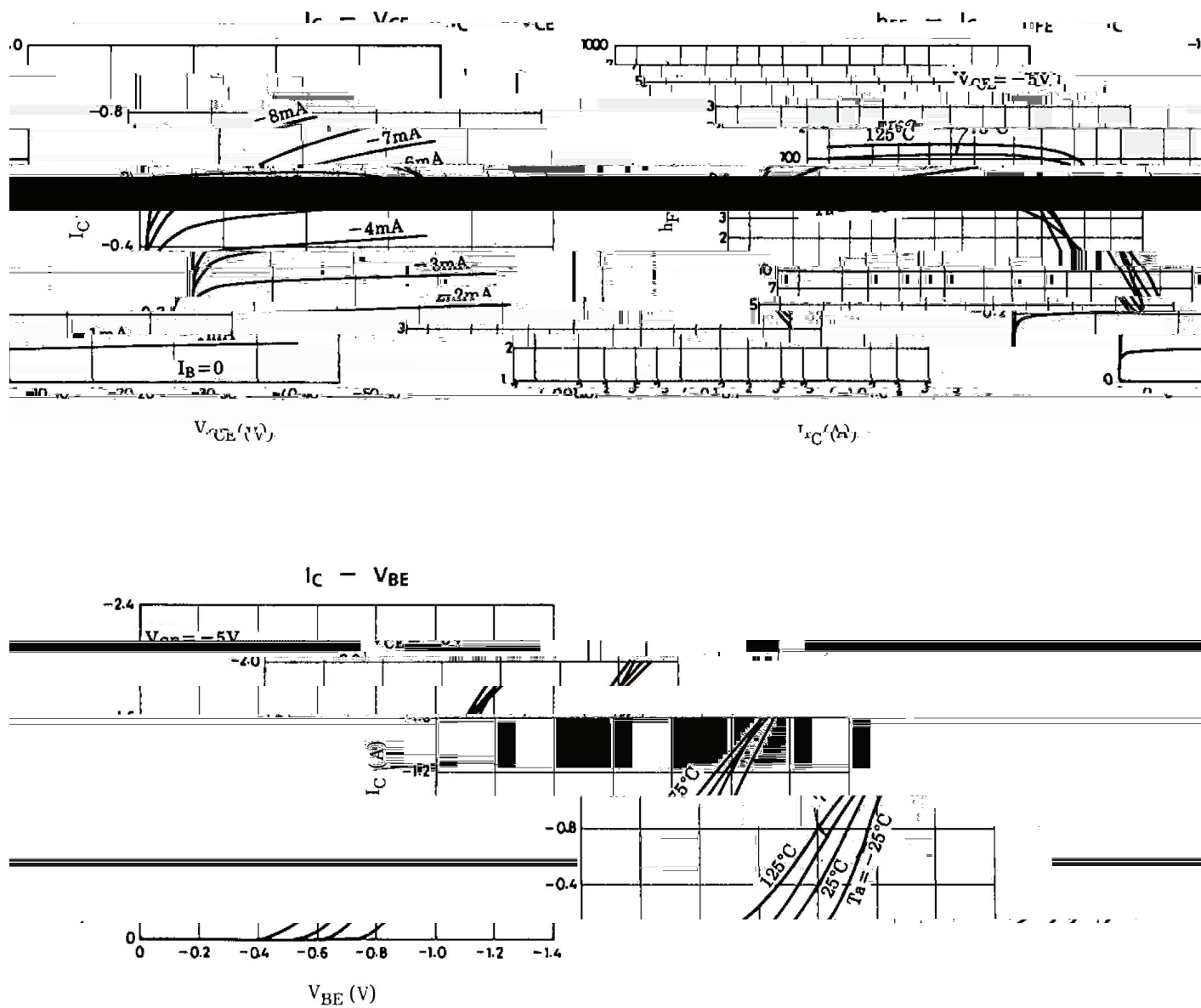
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-180	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-1.5	A
Collector Current – Continuous(Pulse)	I_{CP}	-3.0	A
Collector Power Dissipation	P_C	2.0	W
	$P_C(T_C=25)$	25	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

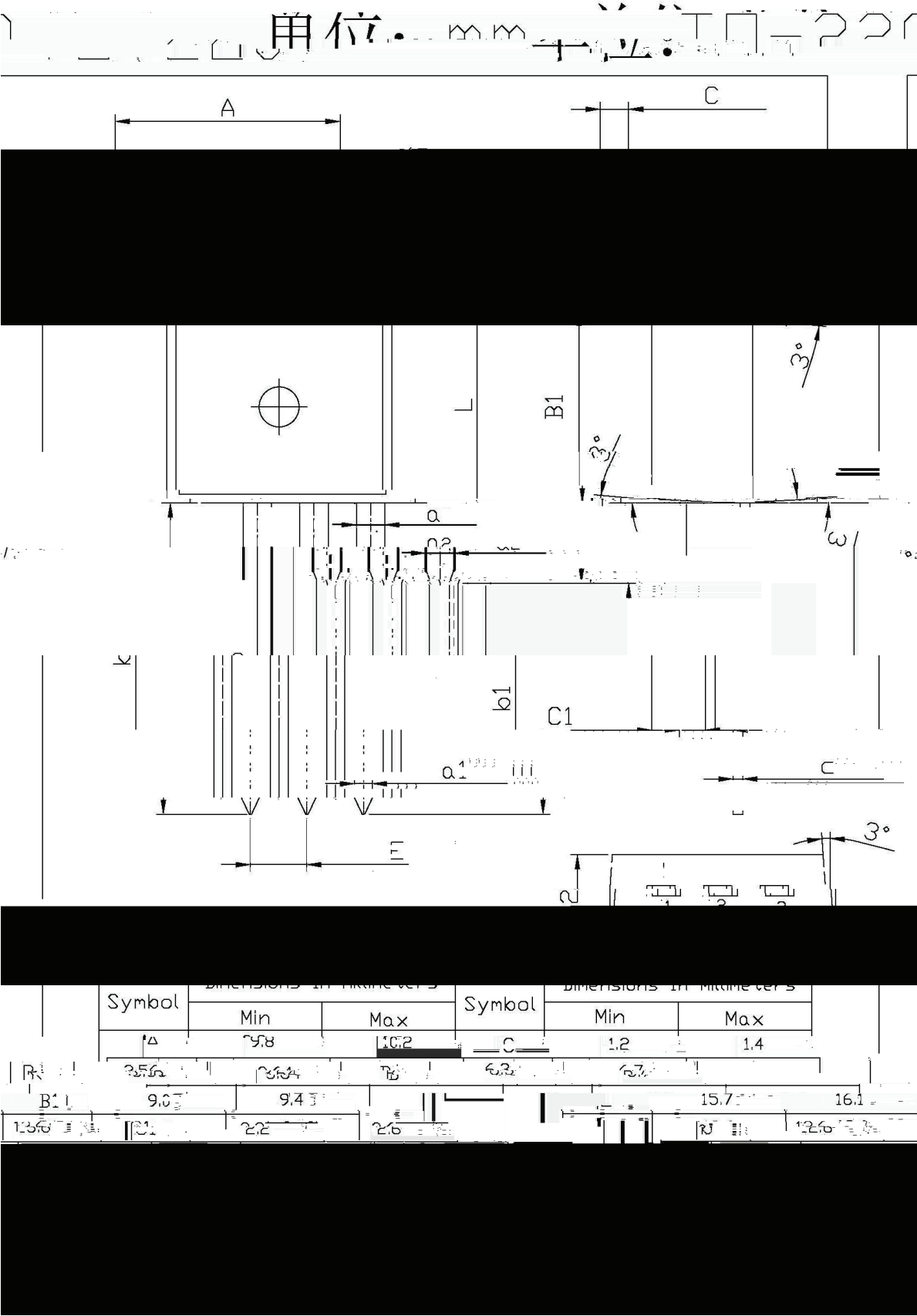
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CBO}	$I_C=-1.0mA$ $I_E=0$	-180			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-160			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10mA$ $I_C=0$	-6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-120V$ $I_E=0$			-10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-4.0V$ $I_C=0$			-10	μA
DC Current Gain	h_{FE}	$V_{CE}=-5.0V$ $I_C=-300mA$	60		200	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-0.5		V
Base to Emitter Voltage	V_{BE}	$V_{CE}=-5.0V$ $I_C=-10mA$		-1.5		V
Transition Frequency	f_T	$V_{CE}=-10V$ $I_C=-50mA$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V$ $f=1.0MHz$		30		pF
Turn-On Time	t_{on}	$-10I_{B1}=10I_{B2}=-I_C=-0.5A$		0.29		μs
Turn-Off Time	t_{off}			0.19		μs
Storage Time	t_{stg}			0.48		μs

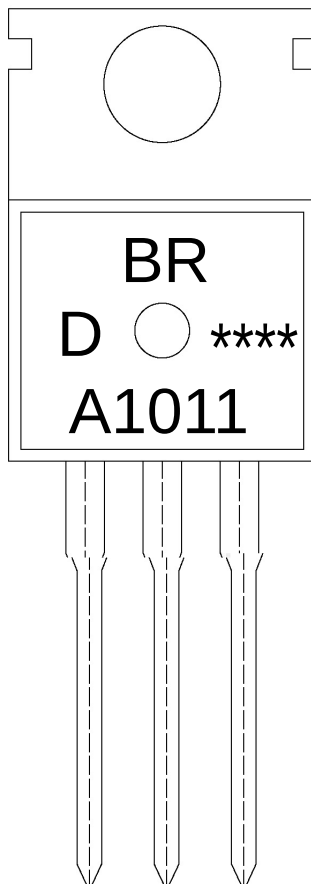
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

A1011

D: h_{FE}

Note:

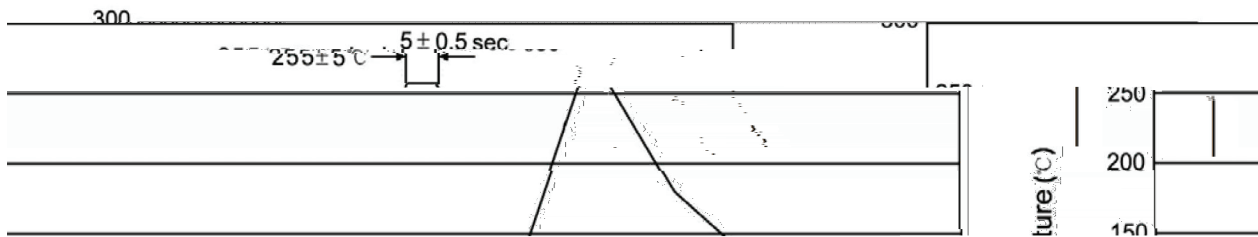
BR: Company Code

A1011: Product Type.

D: 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 mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices