

/ Descriptions

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

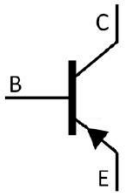
/ Features

Flat DC current gain characteristics, high breakdown voltage, high f_T , wide SOA, complements the 2SC5248.

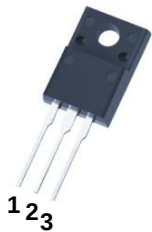
/ Applications

High-voltage switching(audio output amplifier transistor, stabilized power supply transistor).

/ 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

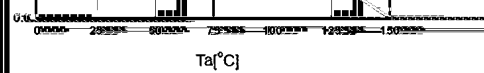
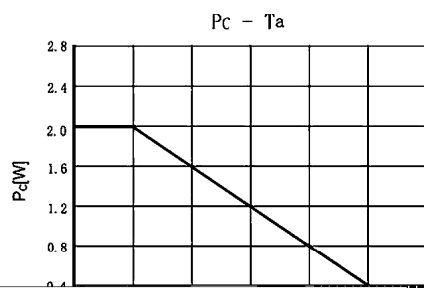
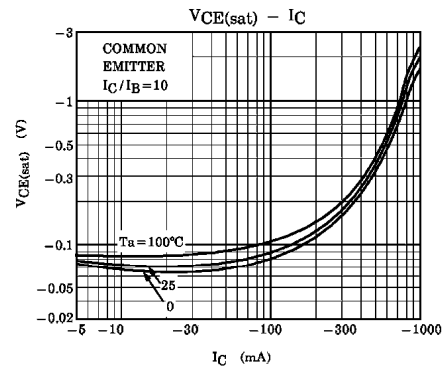
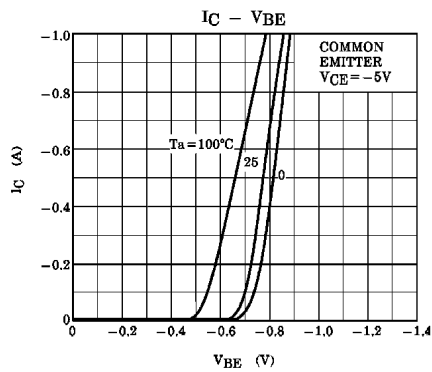
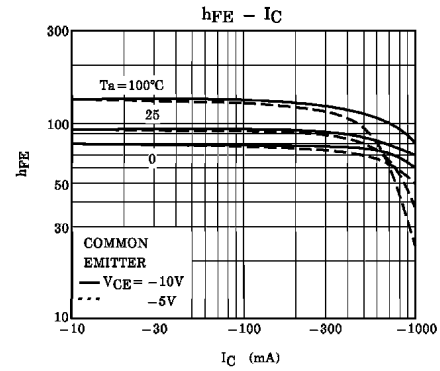
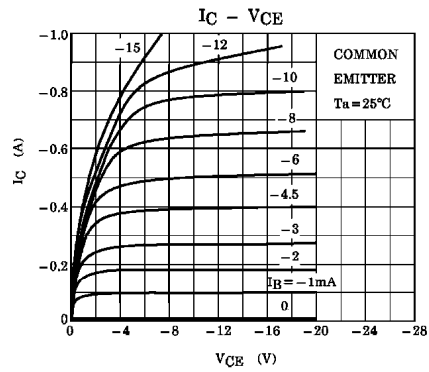
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-160	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-1.5	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C(TC=25^{\circ}C)$	20	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}C$

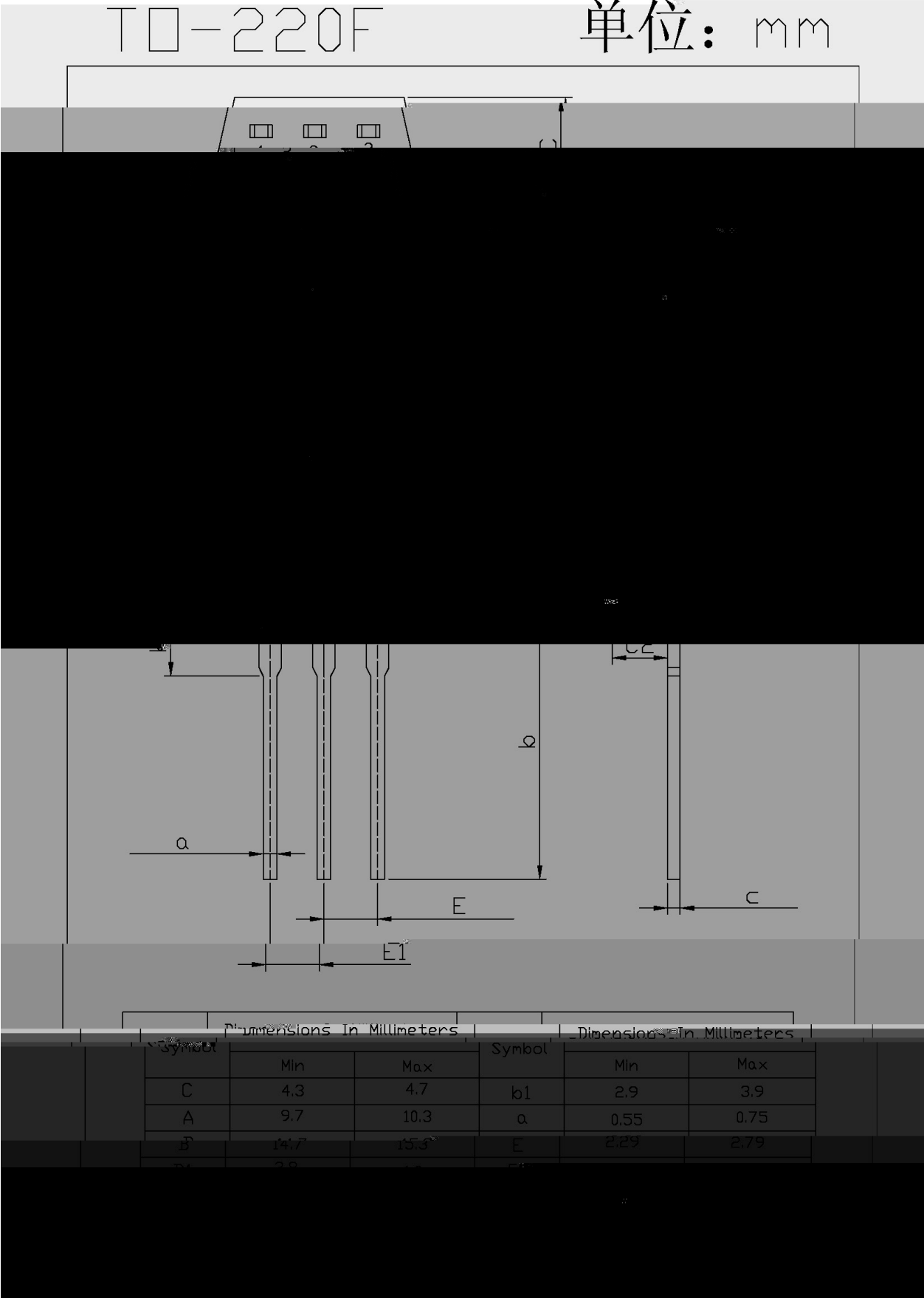
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-50\mu A$ $I_E=0$	-160			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-160			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-50\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-160V$ $I_E=0$			-1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-4.0V$ $I_C=0$			-1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=-5.0V$ $I_C=-0.1A$	60		200	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-1.0A$ $I_B=-0.1A$			-1.0	V
Transition Frequency	f_T	$V_{CE}=-10V$ $f=100MHz$ $I_E=0.2A$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$		35		pF

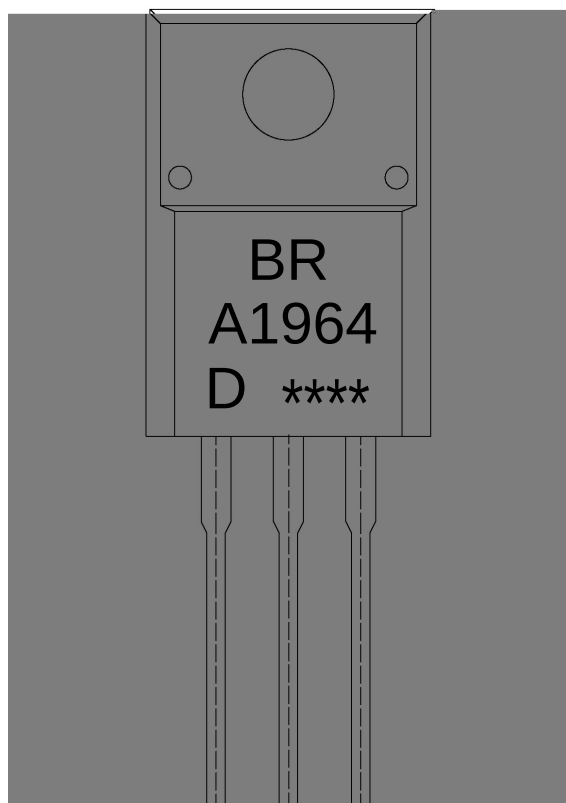
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Note:

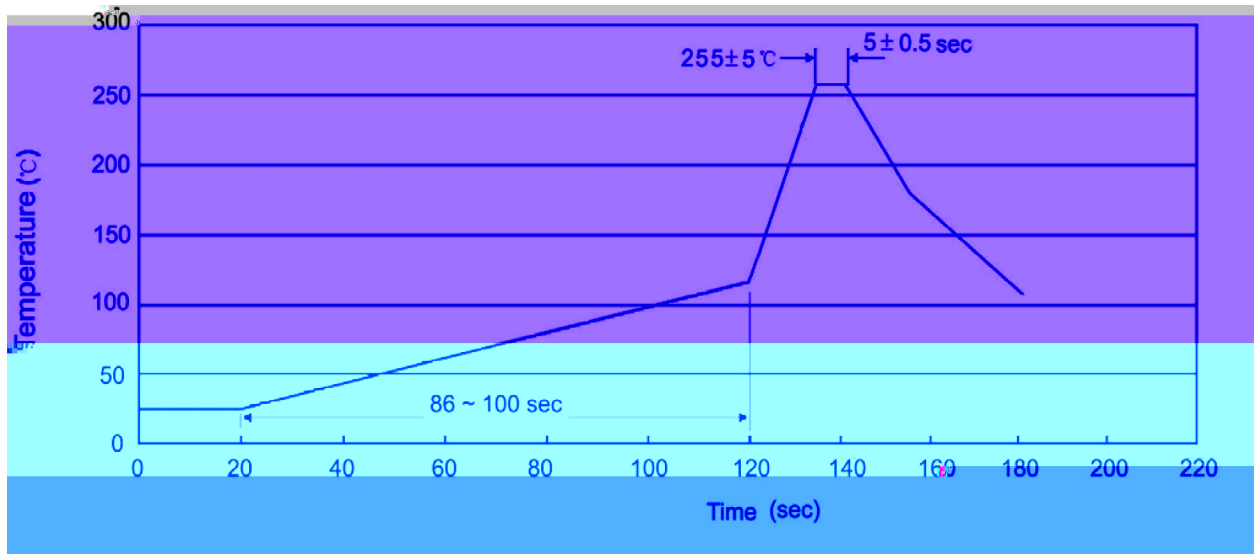
BR: Company Code.

A1964: 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