/ Descriptions

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

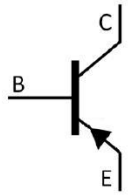
/ Features

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

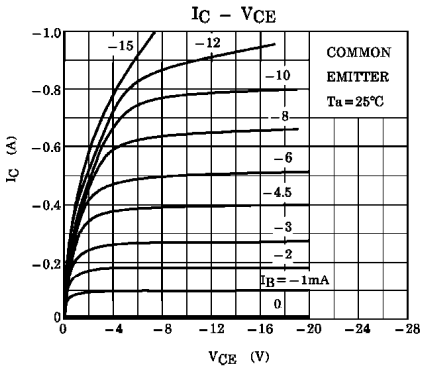
/ Absolute Maximum Ratings(Ta=25)

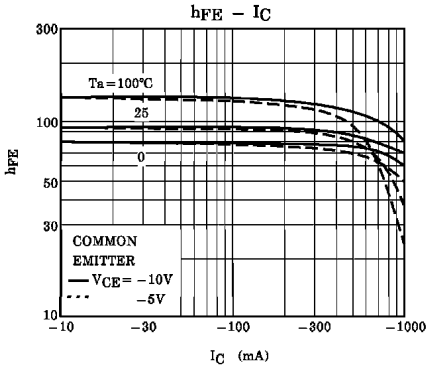
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-160	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-1.5	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	P_C(TC=25℃)	20	W
Junction Temperature	T_j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

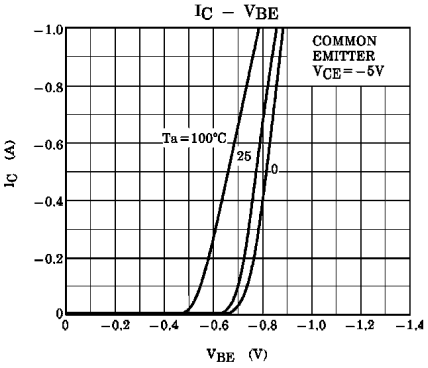
/ Electrical Characteristics(Ta=25)

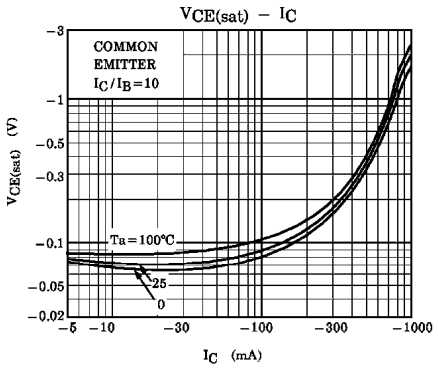
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-50μA I_E=0	-160			V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=-1.0mA I_B=0	-160			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-50μA I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-160V 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 I_E=0.2A f=100MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz		35		pF

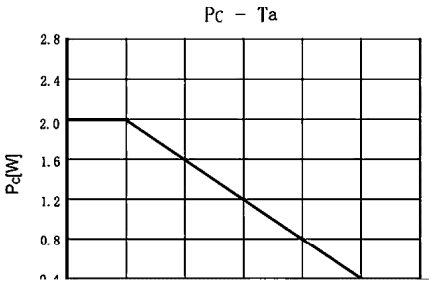
/ Electrical Characteristic Curve

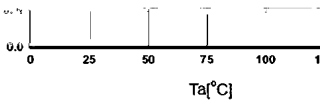




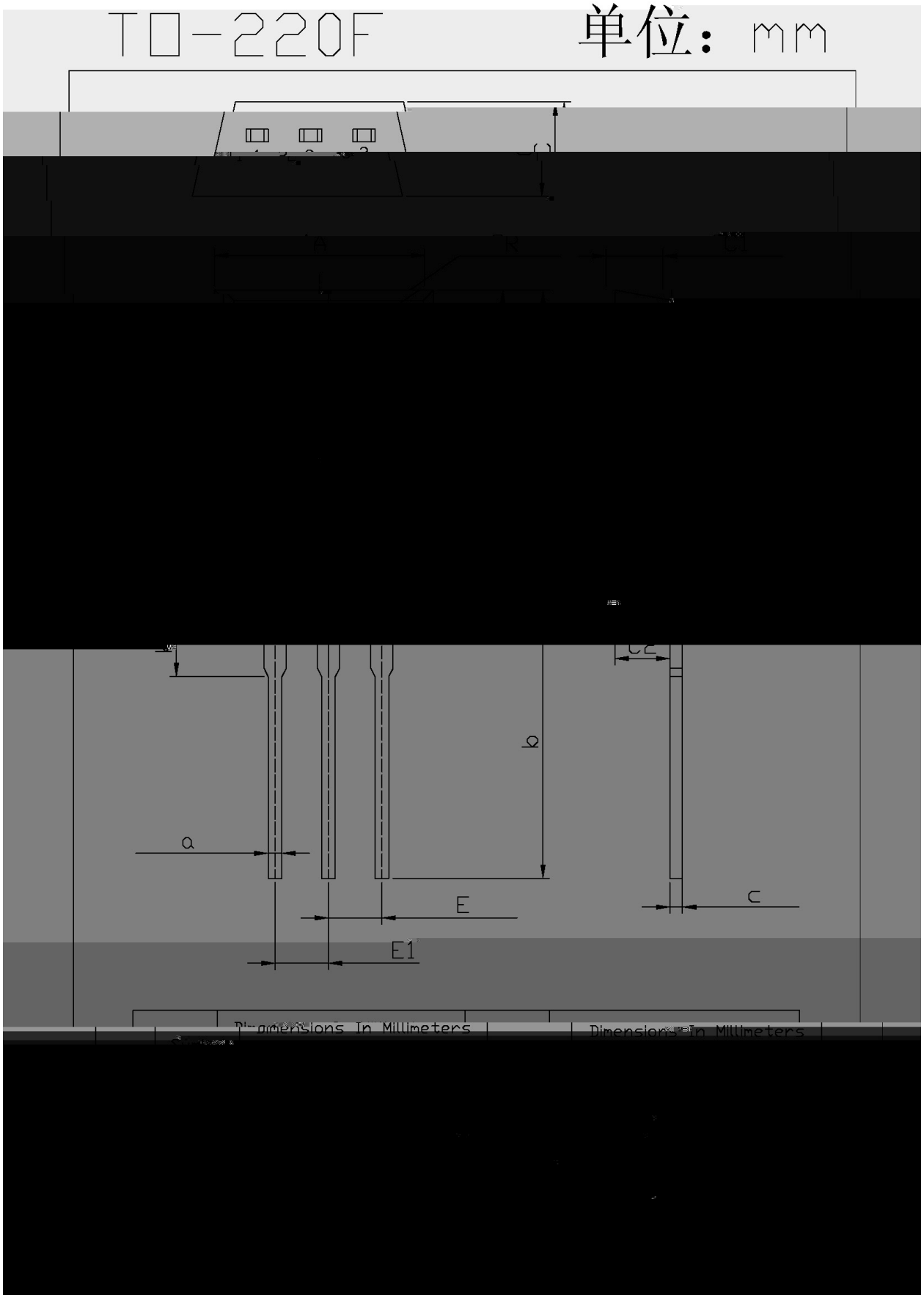




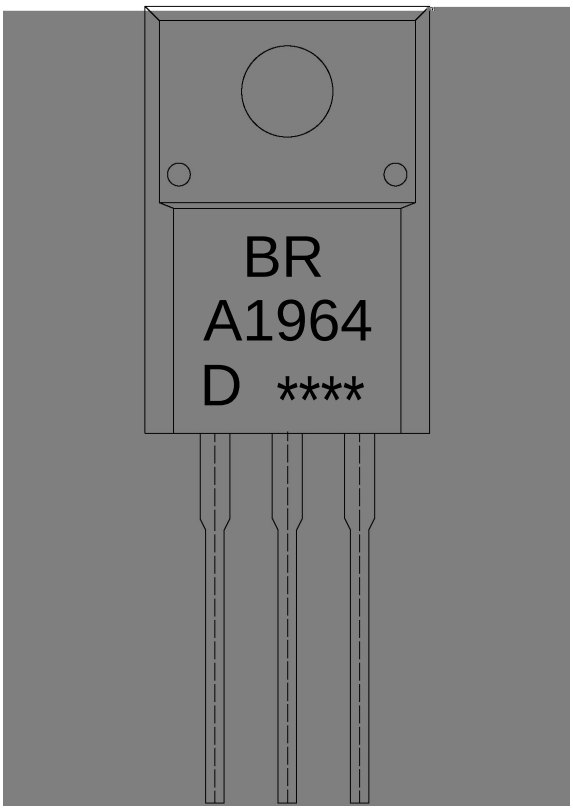




/ Package Dimensions



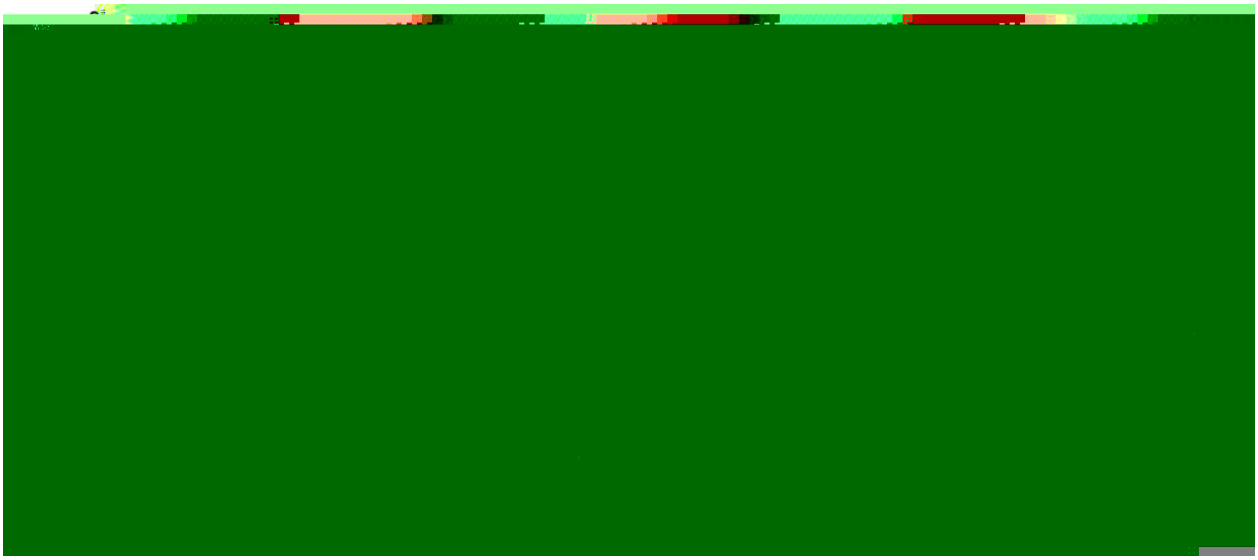
/ Marking Instructions



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