

/ Descriptions

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

/ Features

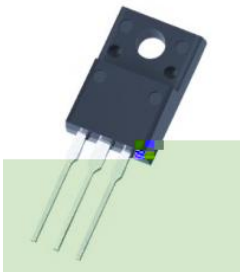
Good linearity of h_{FE} , complementary to KTA1658.

/ Applications

General purpose amplifier.

/ Equivalent Circuit

/ Pinning



PIN1	Base	PIN 2	Collector	PIN 3	Emitter
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/ h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	O	Y
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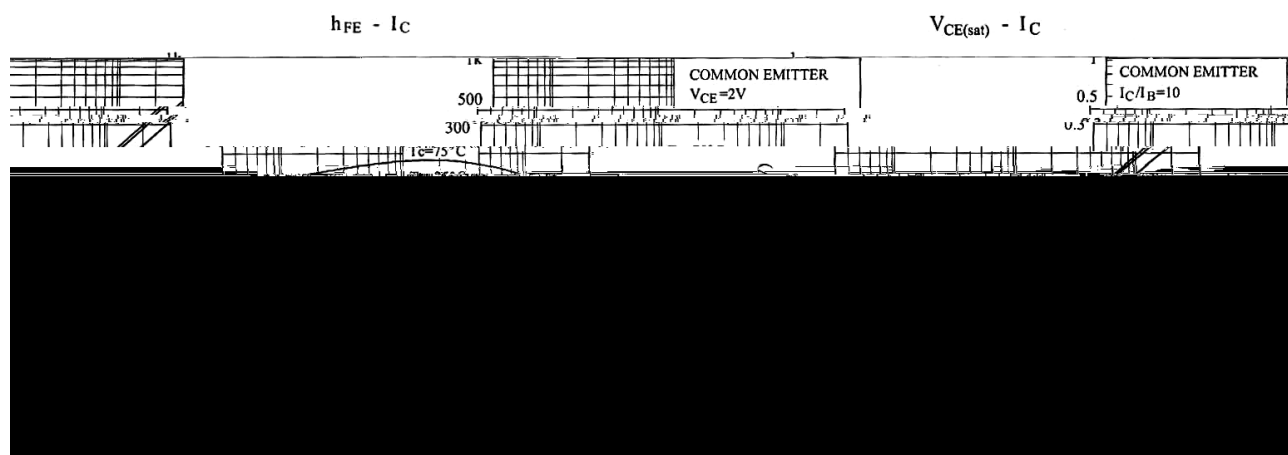
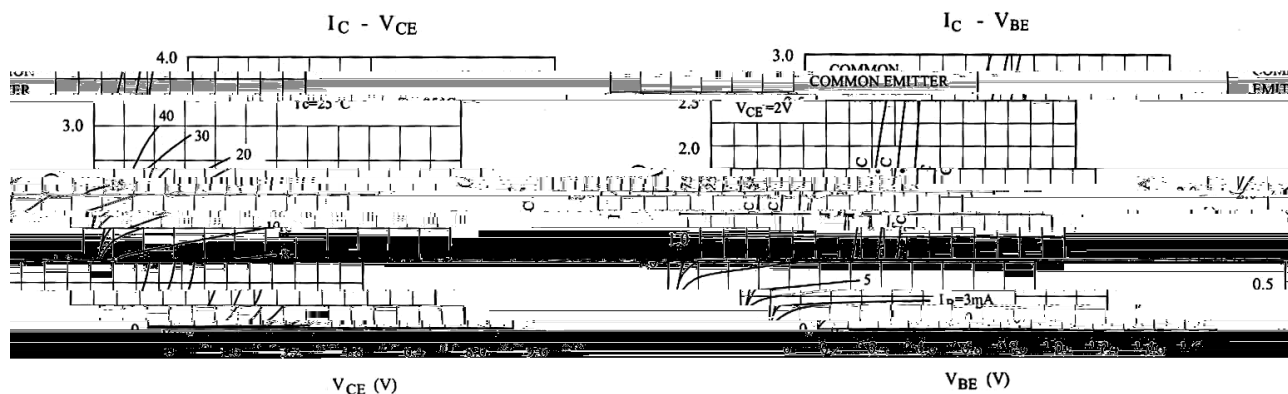
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	3.0	A
Base Current	I_B	0.3	A
Collector Power Dissipation	P_C	1.5	W
Collector Power Dissipation	$P_C(T_c=25)$	15	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

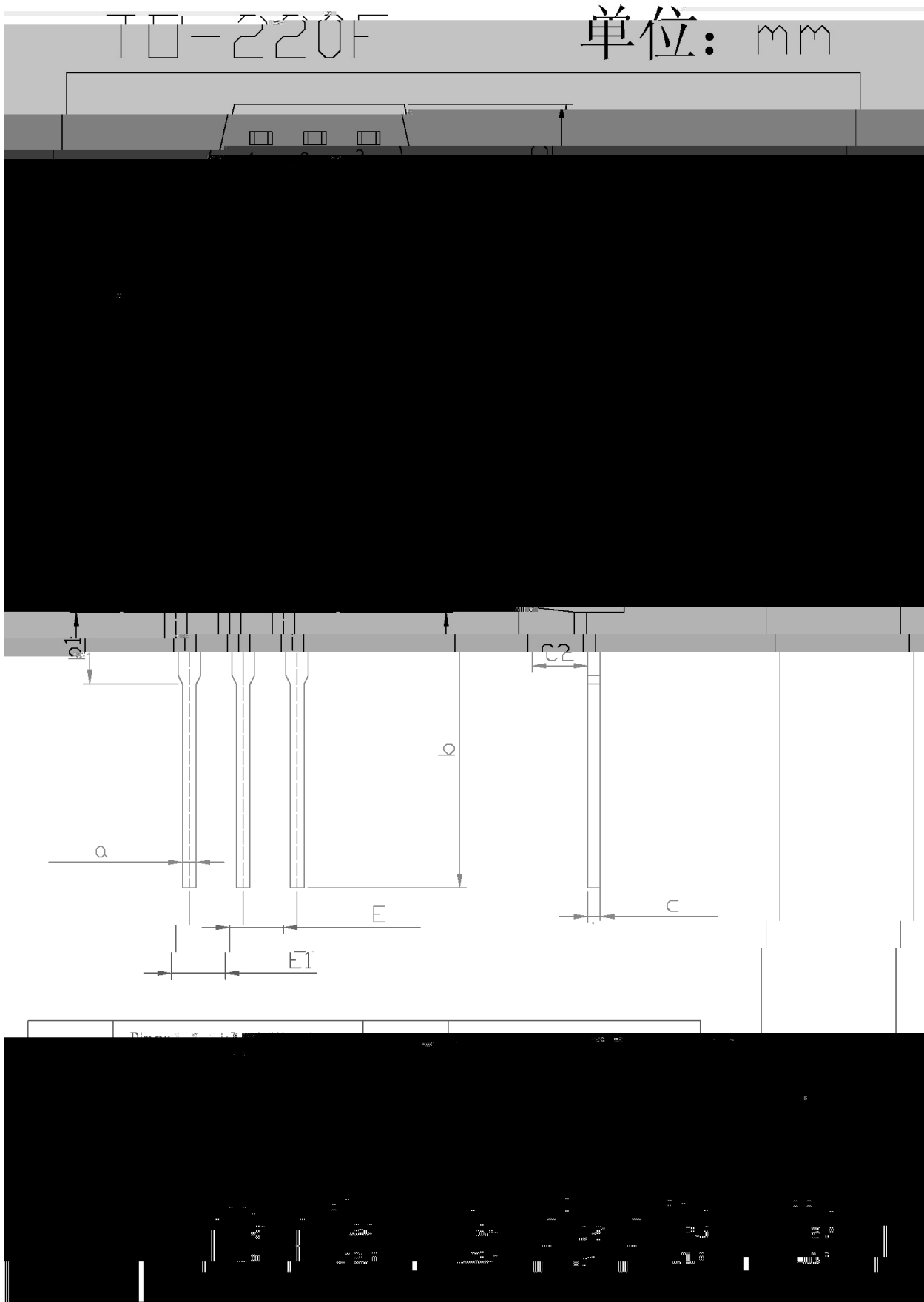
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	30			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20V$ $I_E=0$			1.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			1.0	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=0.5A$	70		240	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=2.5A$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A$ $I_B=0.2A$		0.3	0.8	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=2.0V$ $I_C=0.5A$		0.75	1.0	V
Transition Frequency	f_T	$V_{CE}=2.0V$ $I_C=0.5A$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		3.5		pF

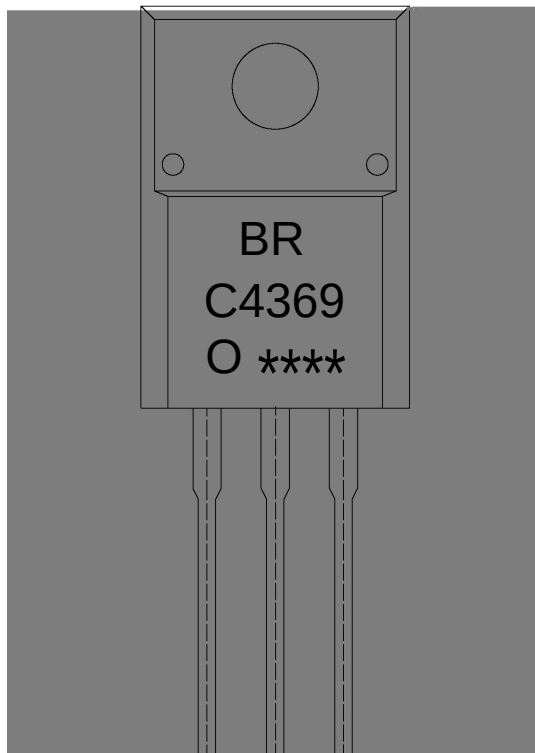
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

C4369

O: h_{FE}

Note:

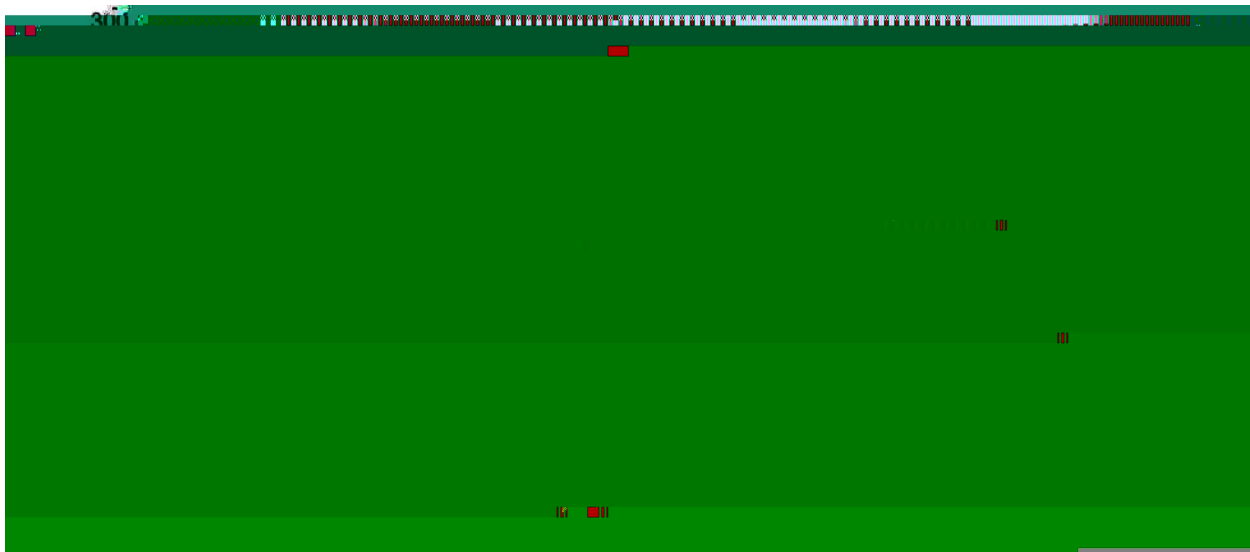
BR: Company Code.

C4369: Product Type.

O: 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. |