/ Descriptions

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

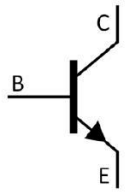
/ Features

High $h_{FE,}$ low saturation voltage.

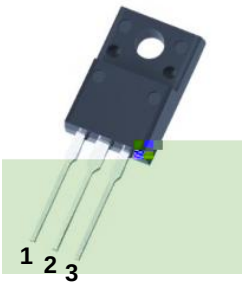
/ Applications

Switching application, interface circuit and driver circuit application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

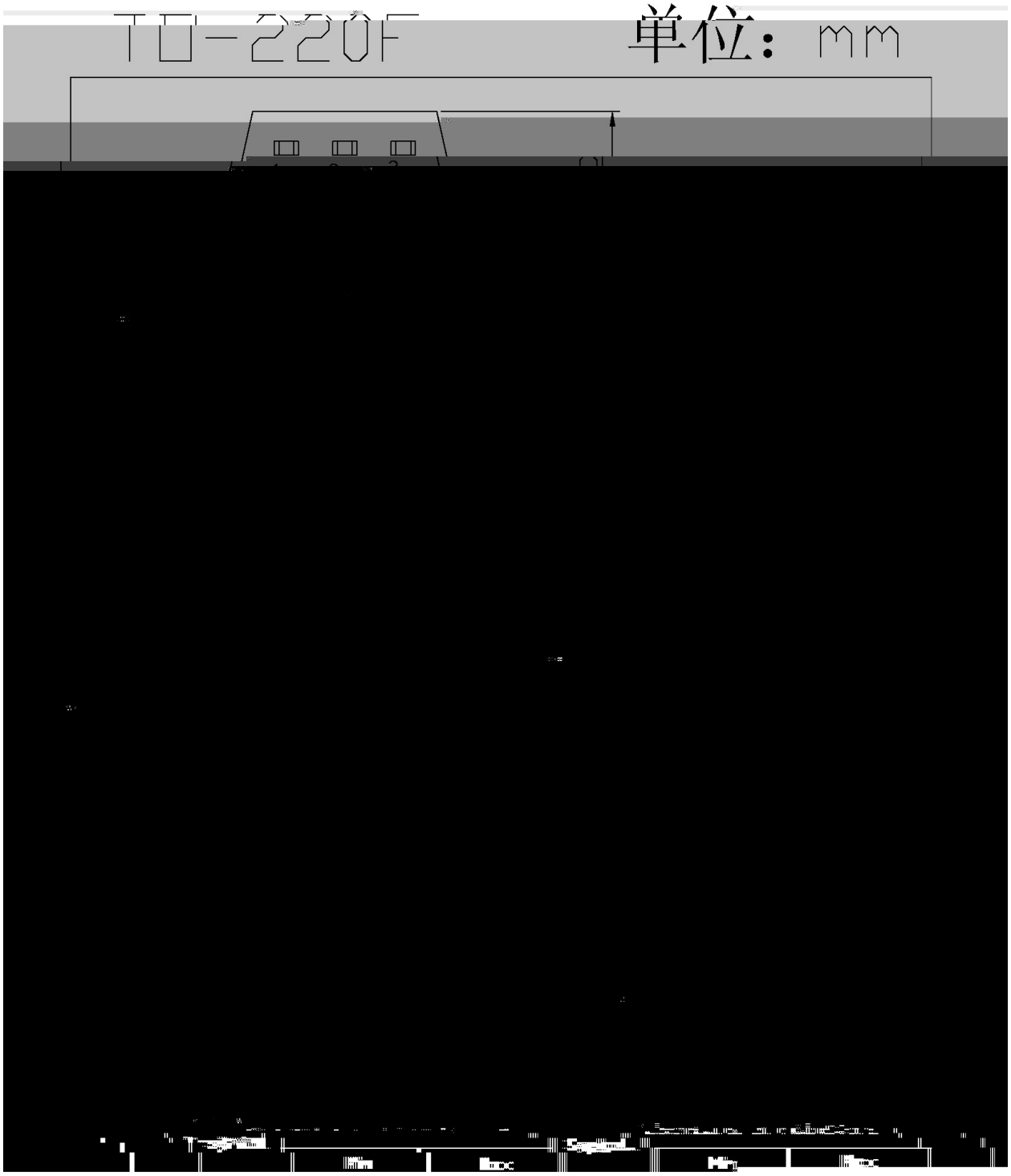
/ h_{FE} Classifications & Marking

See Marking In6wructions.

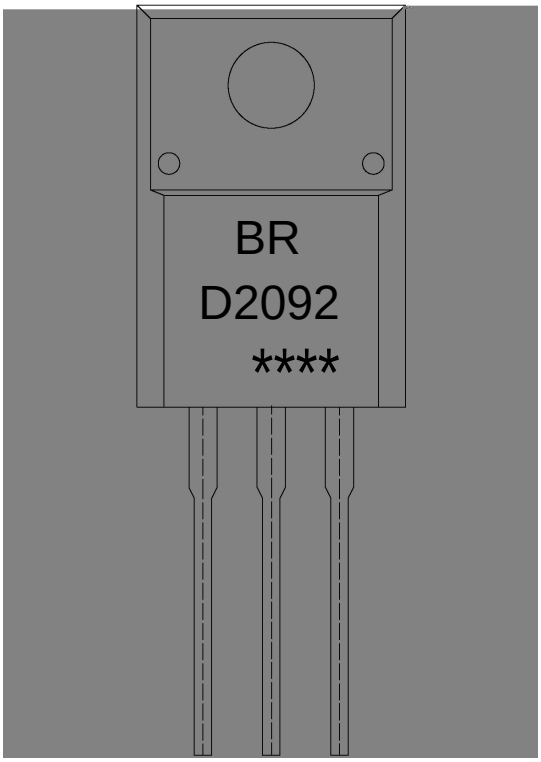
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Current - Continuous(Pulse)	I_{CP}	5.0	A
Base Current	I_B	1.0	A
Collector Power Dissipation	P_C(Tc=25)	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=50mA I_B=0	80			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=80V I_E=0			10	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}				

/ Package Dimensions



/ Marking Instructions



BR

D2092

****

Note:

BR:	Company Code.
D2092:	Product Type.
****:	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 mm3)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	