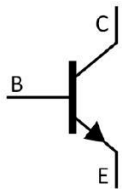


TO-220F NPN Silicon NPN transistor in a TO-220F Plastic Package.

High DC current gain, low $V_{CE(sat)}$, large collector power dissipation, wide SOA.

Low frequency power amplifier.



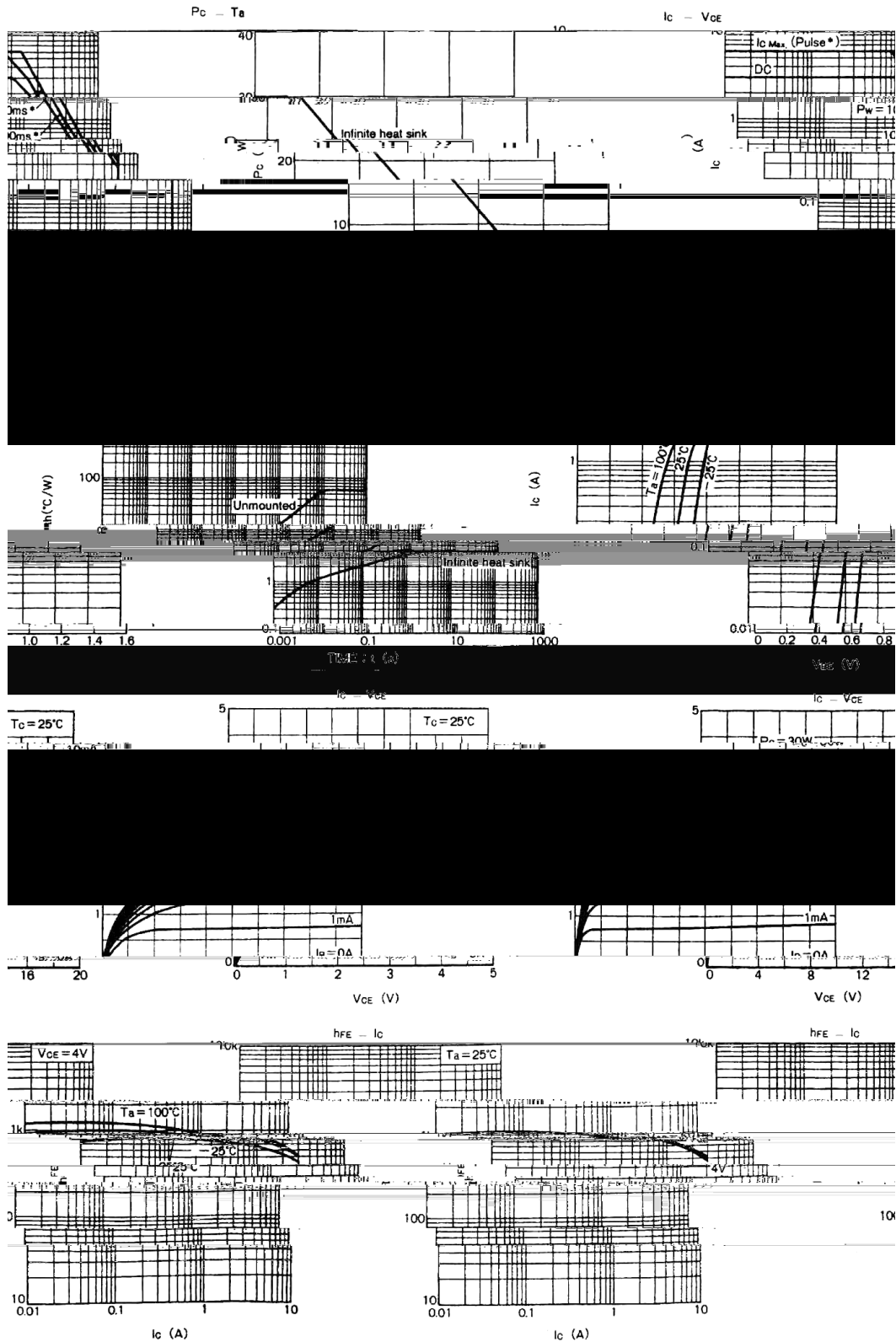
PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

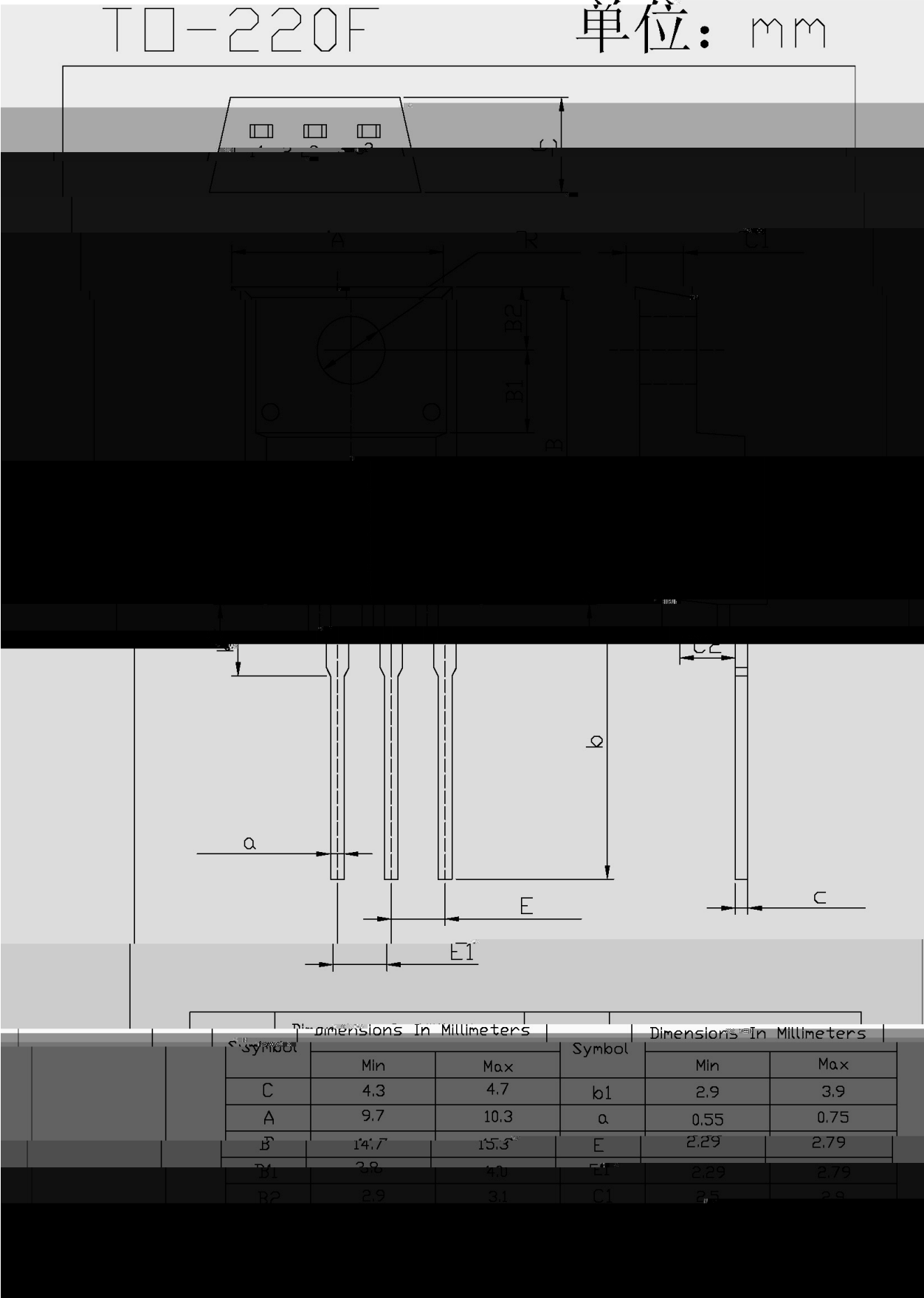
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Current – Continuous(Pulse)	I_{CP}	6.0	A
Collector Power Dissipation	P_C	2.0	W
	$P_C(T_c=25^\circ C)$	30	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\ \mu A$	80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$	60			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\ \mu A$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80V\ I_E=0$			100	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V\ I_C$				

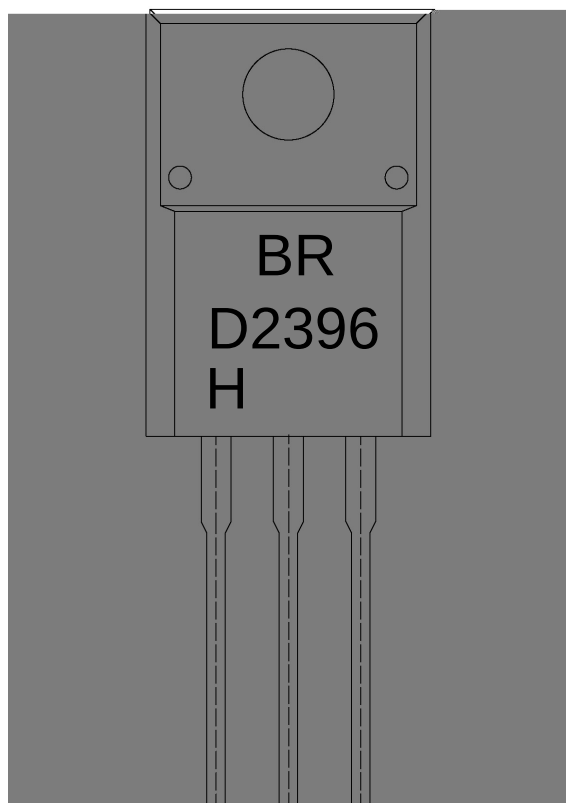
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

D2396

H: h_{FE}

Note:

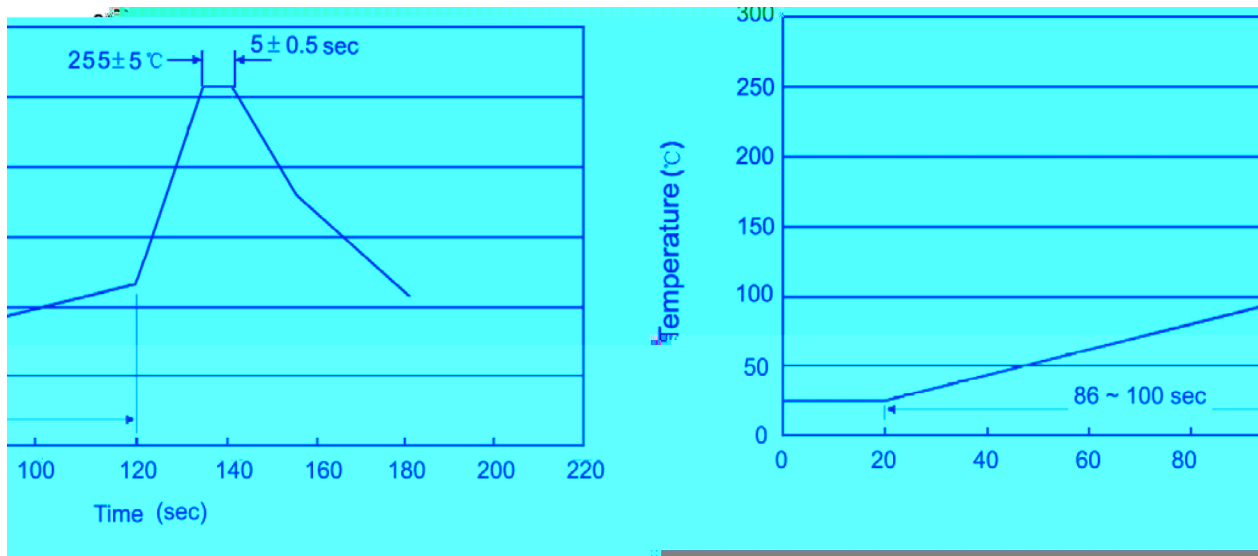
BR: Company Code.

D2396: Product Type.

H: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

1. Preheating: $25 \sim 150^\circ\text{C}$, Time: 60 ~ 90sec;
2. Peak Temp.: $255 \pm 5^\circ\text{C}$, Duration: 5 ± 0.5 sec;
3. Cooling Speed: $2 \sim 10^\circ\text{C}/\text{sec}$.

1. Preheating: $25 \sim 150^\circ\text{C}$, Time: 60 ~ 90sec.
2. Peak Temp.: $255 \pm 5^\circ\text{C}$, Duration: 5 ± 0.5 sec.
3. Cooling Speed: $2 \sim 10^\circ\text{C}/\text{sec}$.

/ Resistance to Soldering Heat Test Conditions

$270 \pm 5^\circ\text{C}$ 10 ± 1 sec. Temp.: $270 \pm 5^\circ\text{C}$ Time: 10 ± 1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units	Dimension	(unit mm^3)
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