

/ Descriptions

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

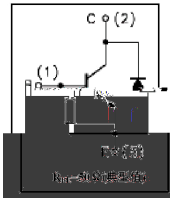
/ Features

High breakdown voltage, Low drain current, High switching speed, Low saturation voltage, Excellent current characteristics.

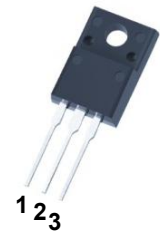
/ Applications

Color TV Horizontal deflection output applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

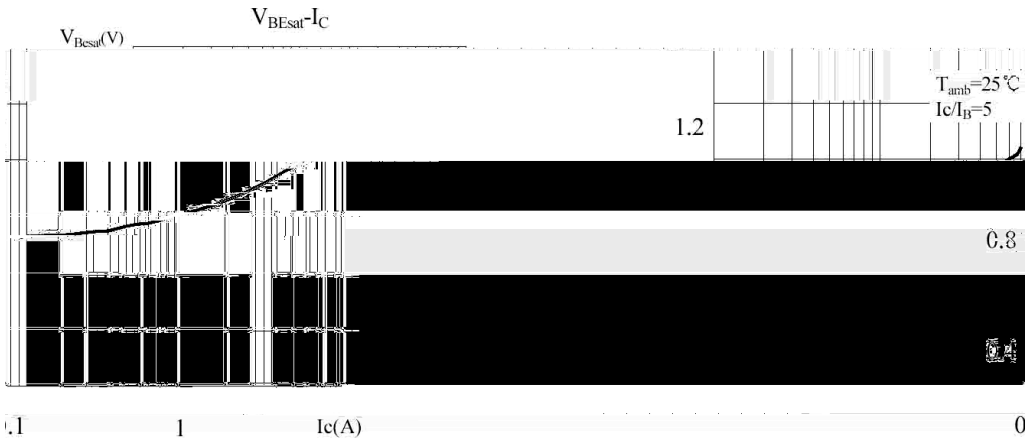
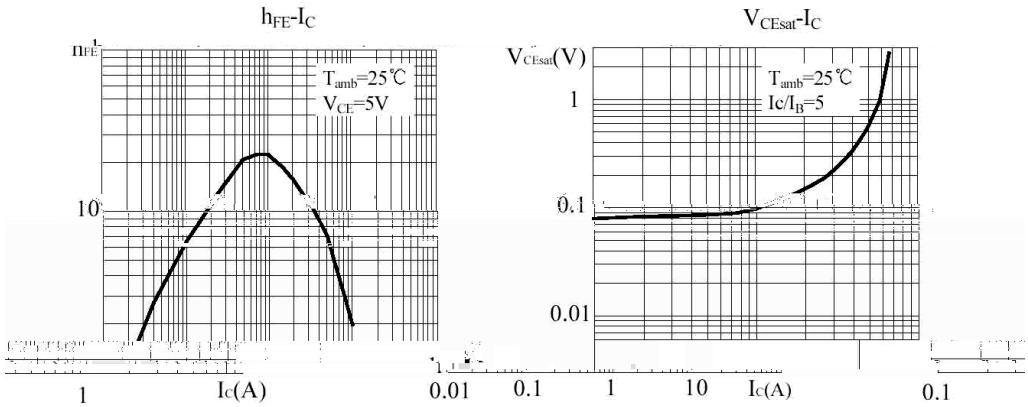
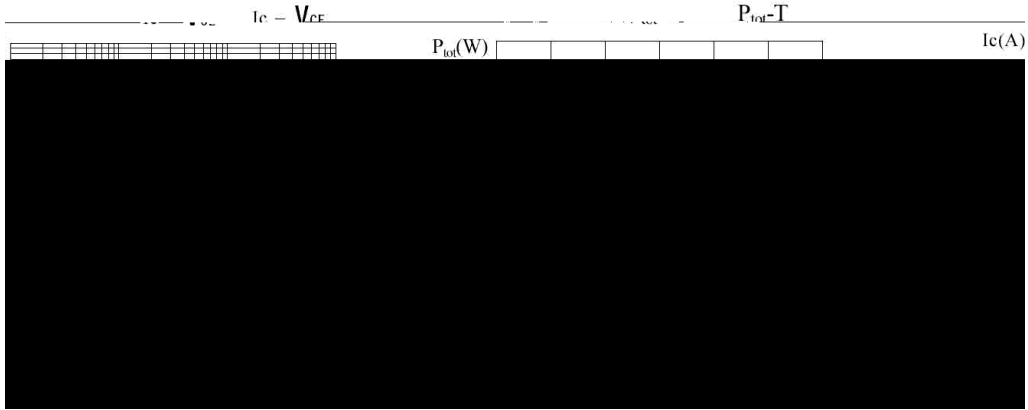
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	1500	V
Collector to Emitter Voltage	V_{CEO}	800	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	6.0	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C(T_c=25)$	40	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

/ Electrical Characteristics(Ta=25)

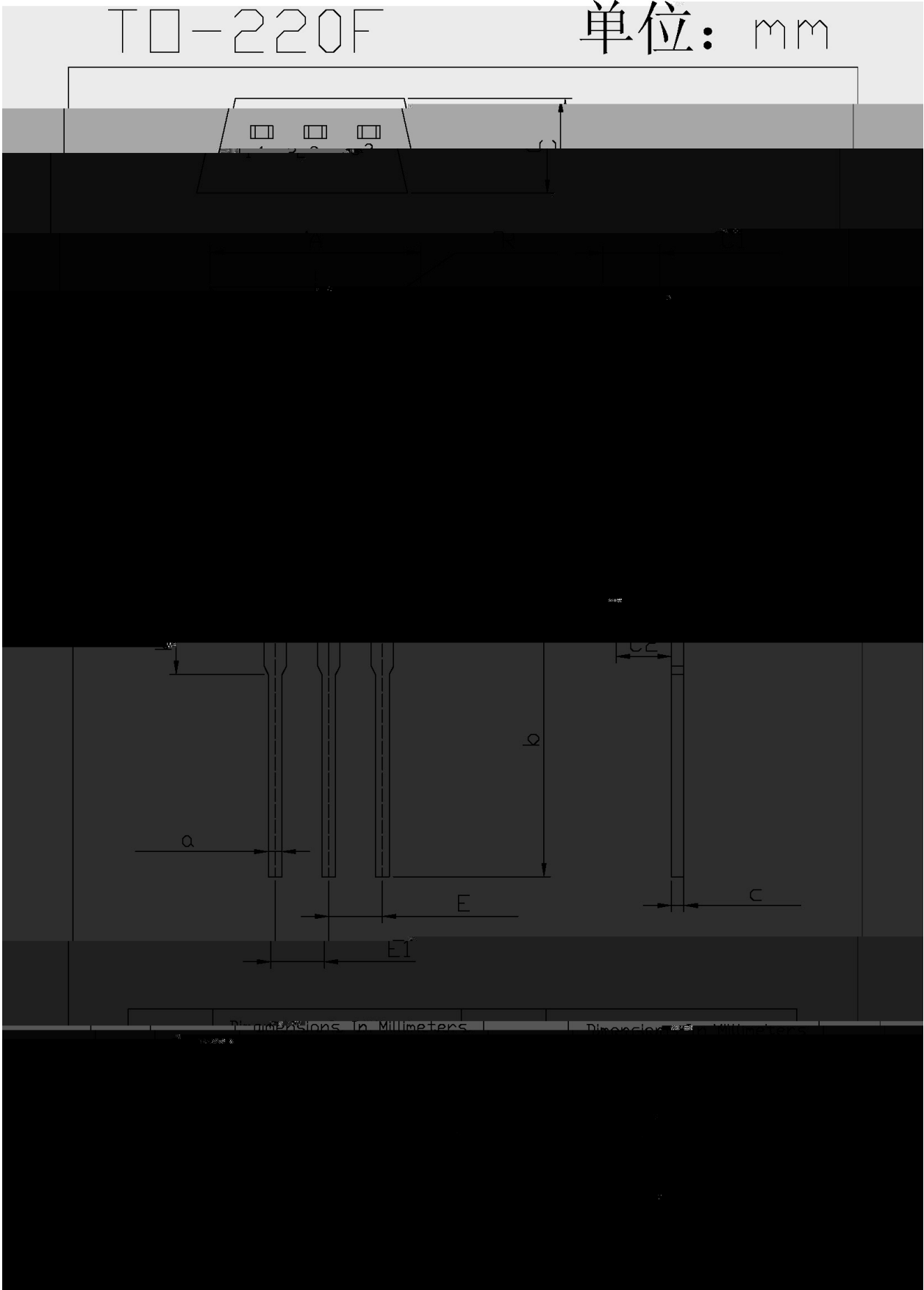
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=1500V$ $I_E=0$			1.0	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$	40		200	mA
DC Current Gain*	h_{FE}^*	$V_{CE}=5.0V$ $I_C=1.0A$	10		40	
Collector to Emitter Saturation Voltage*	$V_{CE(sat)}^*$	$I_C=4.5A$ $I_B=0.9A$			5.0	V
Base to Emitter Saturation Voltage*	$V_{BE(sat)}^*$	$I_C=4.5A$ $I_B=0.9A$			1.5	V
Fall Time	t_f	$2I_{B1}=-I_{B2}=1.0A$ $V_{CC}=100V$ $I_C=5.0A$			1.0	s
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=0.1A$ $f=0.3MHz$	2			MHz

*: t_p 300 μ s, 2%

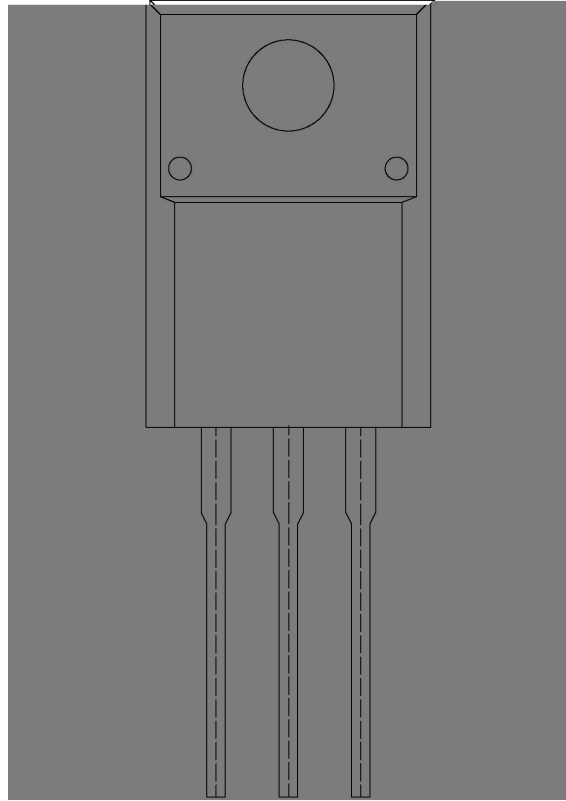
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

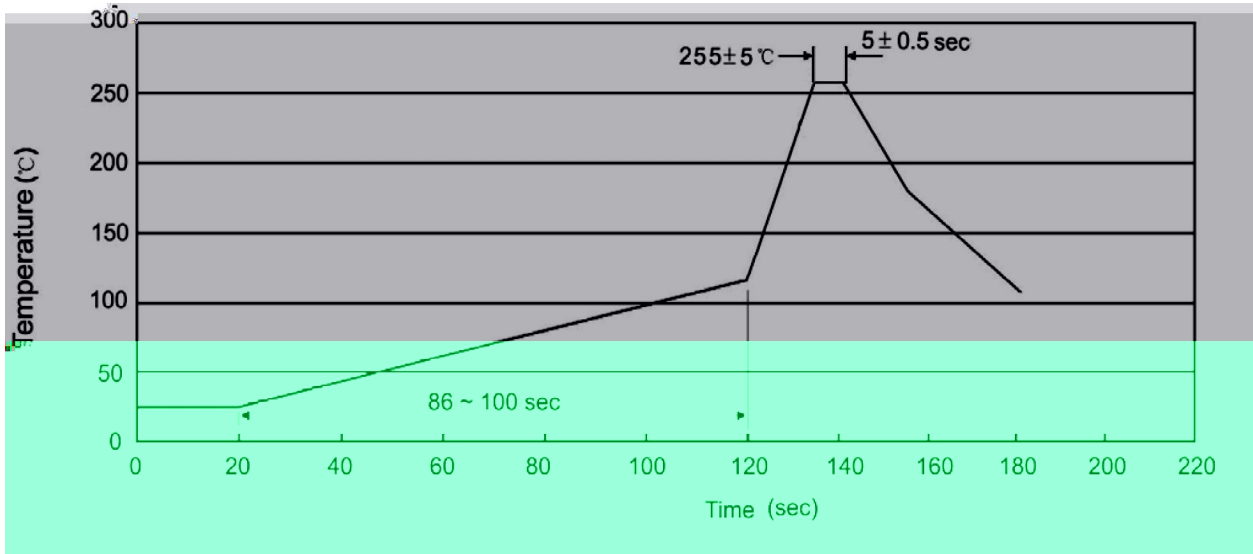
DD5024

Note:

BR: Company Code.

DD501-0.y C004 Tc

() / 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 封装形式	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units 包装数量 Units/Inner Box 只/盒	Dimension 包装尺寸 (unit: mm ³)
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