

/ Descriptions

Silicon NPN transistor in a TO-3P Plastic Package.

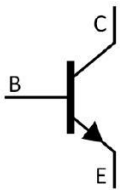
/ Features

High voltage.

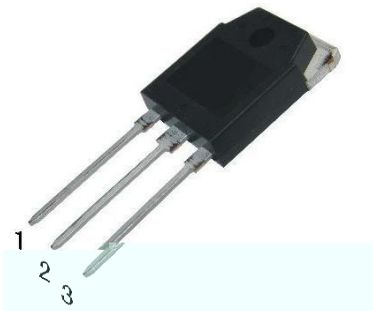
/ Applications

Humidifier, DC-DC converter, and general purpose.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

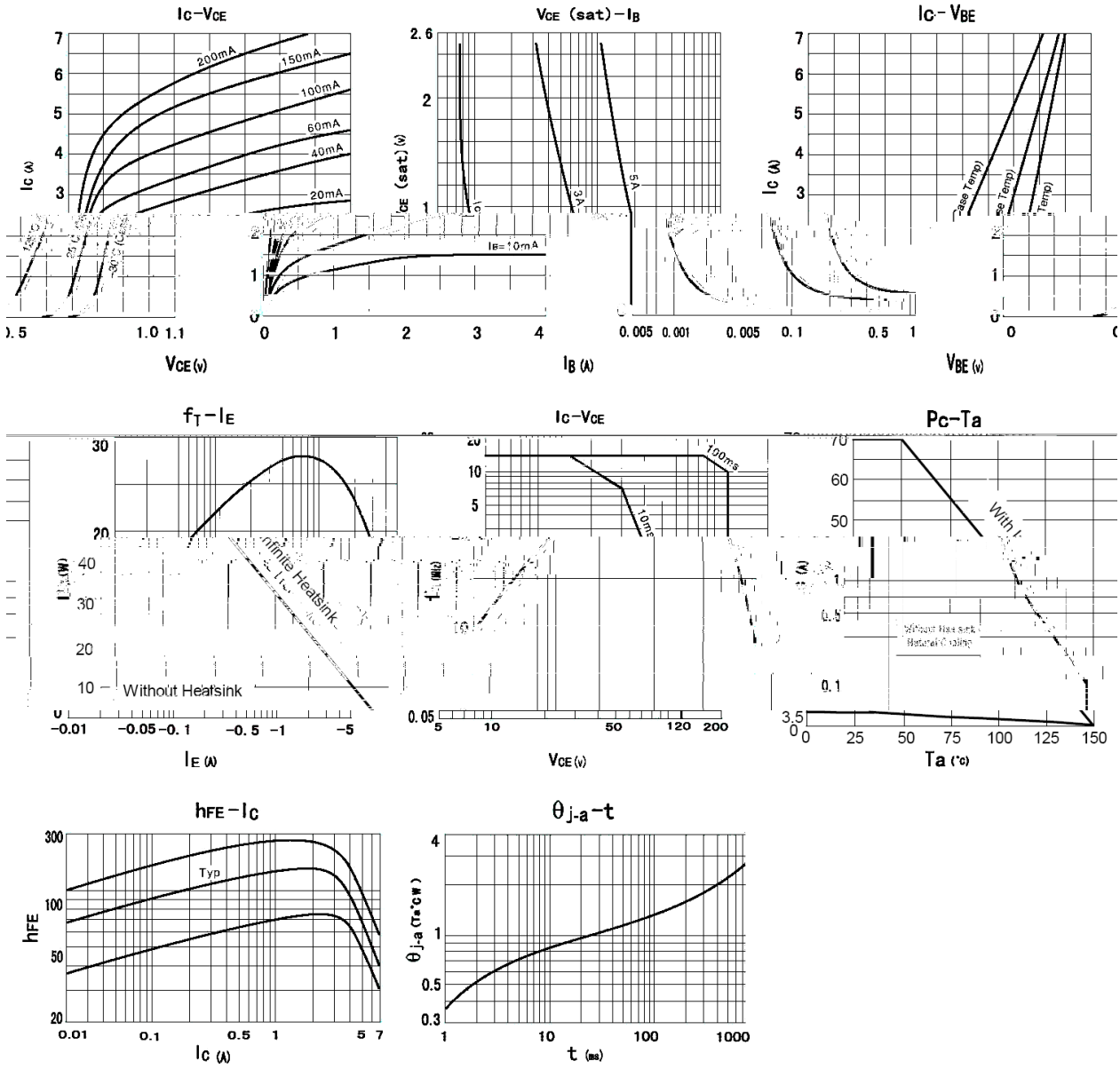
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	200	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	8.0	V
Collector Current - Continuous	I_C	7.0	A
Base Current	I_B	3.0	A
Collector Power Dissipation	$P_C (T_C=25)$	70	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

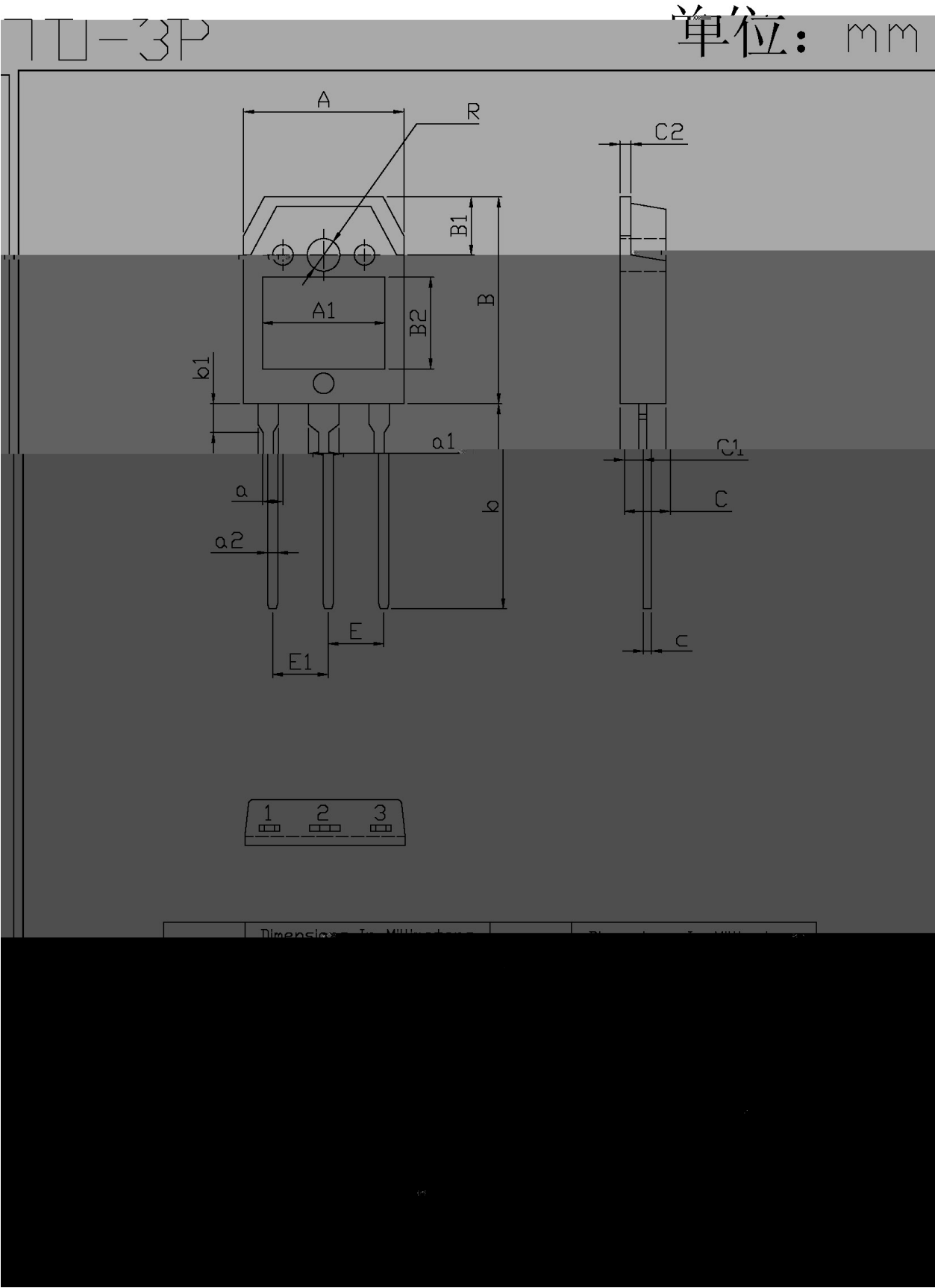
/ Electrical Characteristics(Ta=25)

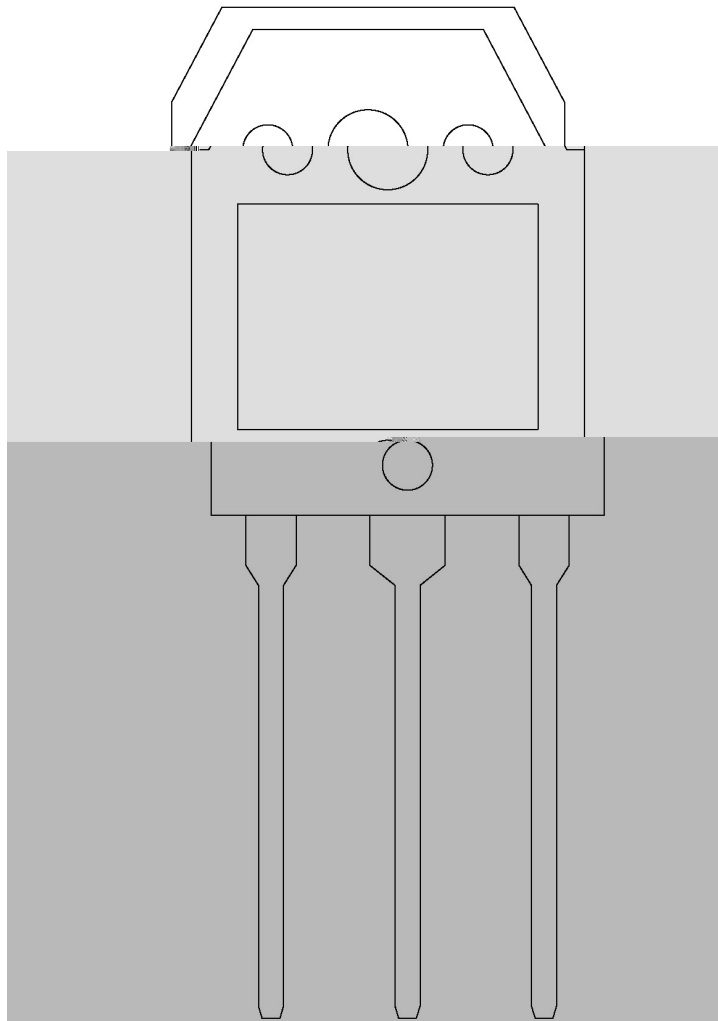
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=50mA$ $I_E=0$	120			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=200V$ $I_E=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=8.0V$ $I_E=0$			100	μA
DC Current Gain	h_{FE}	$V_{CE}=4.0V$ $I_C=3.0A$	70		220	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3.0A$ $I_B=0.3A$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3.0A$ $I_B=0.3A$			1.2	V
Transition Frequency	f_T	$V_{CE}=12V$ $I_E=-0.5A$		30		MHz
Collector Output Capacitance	C_{ob}	$f=1.0MHz$ $V_{CB}=10V$		110		pF

/ Electrical Characteristic Curve



/ Package Dimensions





() / 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.

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

/ Notices