

/ Descriptions

WR0553I QSQ Silicon NPN transistor in a TO-220F Plastic Package.

/ Features

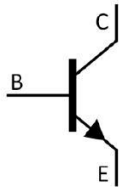
/

High h_{FE} , low $V_{CE(sat)}$.

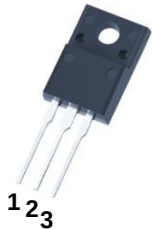
/ Applications

Driver for solenoid and motor, series regulator and general purpose.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

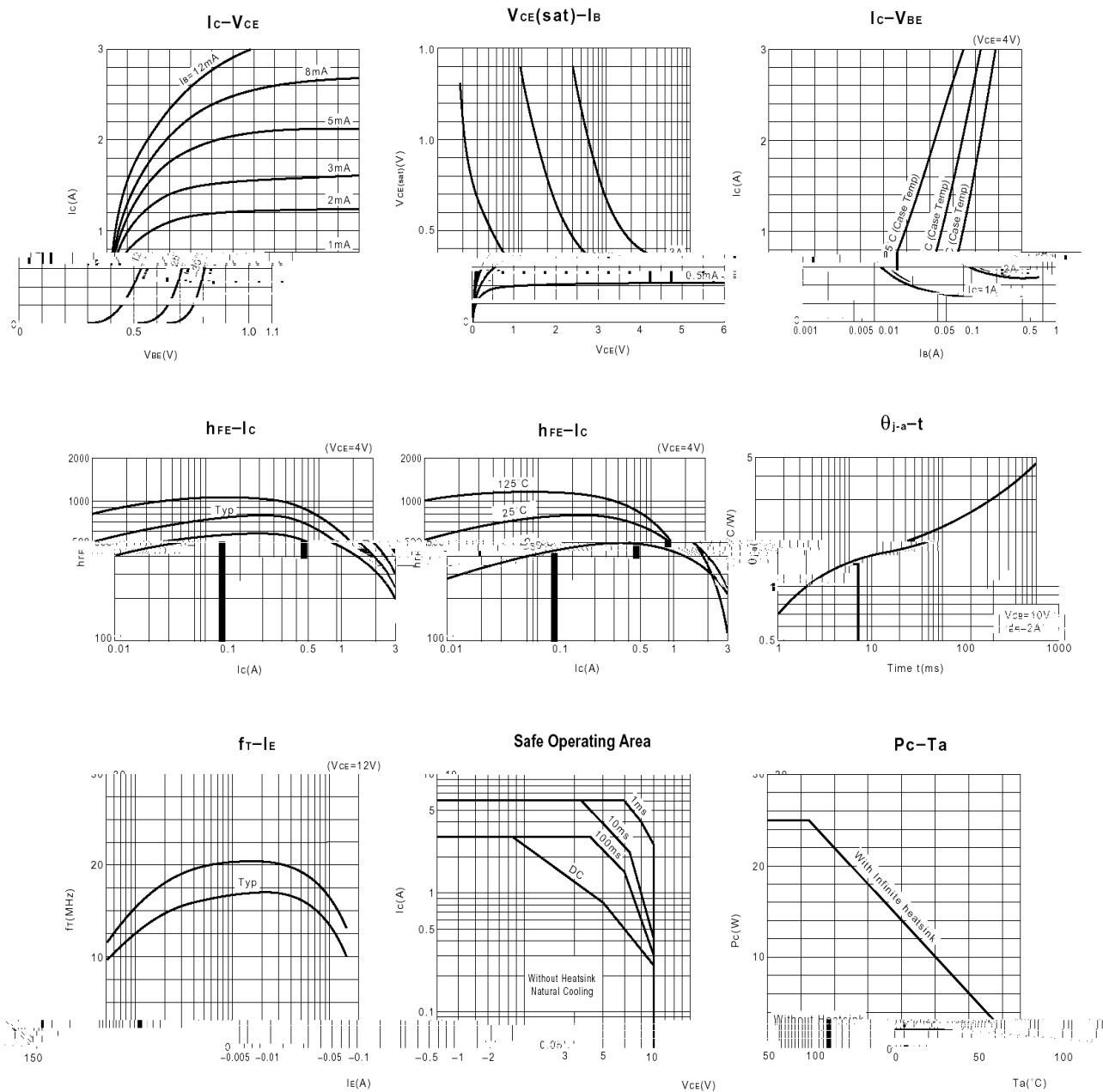
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	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
Base Current	I_B	1.0	A
Collector Power Dissipation	$P_C(T_c=25)$	25	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

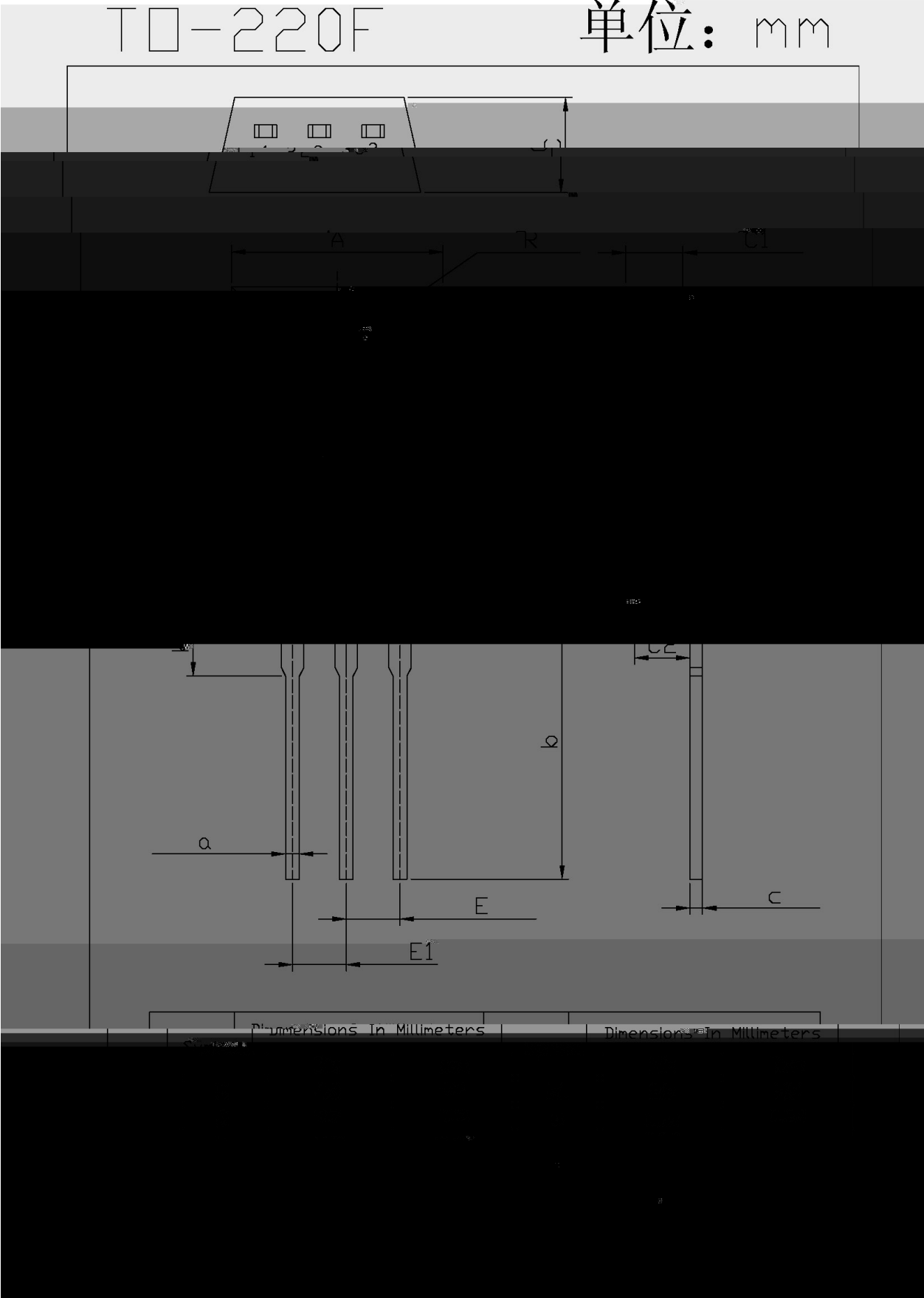
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=25mA$	60			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80V \quad I_E=0$			10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V \quad I_C=0$			100	μA
DC Current Gain	h_{FE}	$V_{CE}=4.0V \quad I_C=500mA$	500		2000	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A \quad I_B=50mA$			0.5	V
Transition Frequency	f_T	$V_{CE}=12V \quad I_C=0.2A$		15		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V \quad I_E=0$ $f=1.0MHz$		50		pF

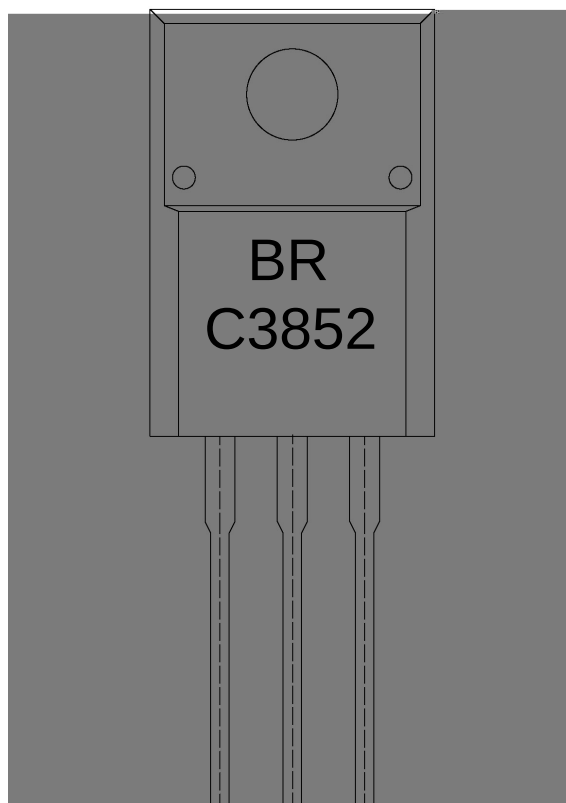
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



EU

F6 ; 85

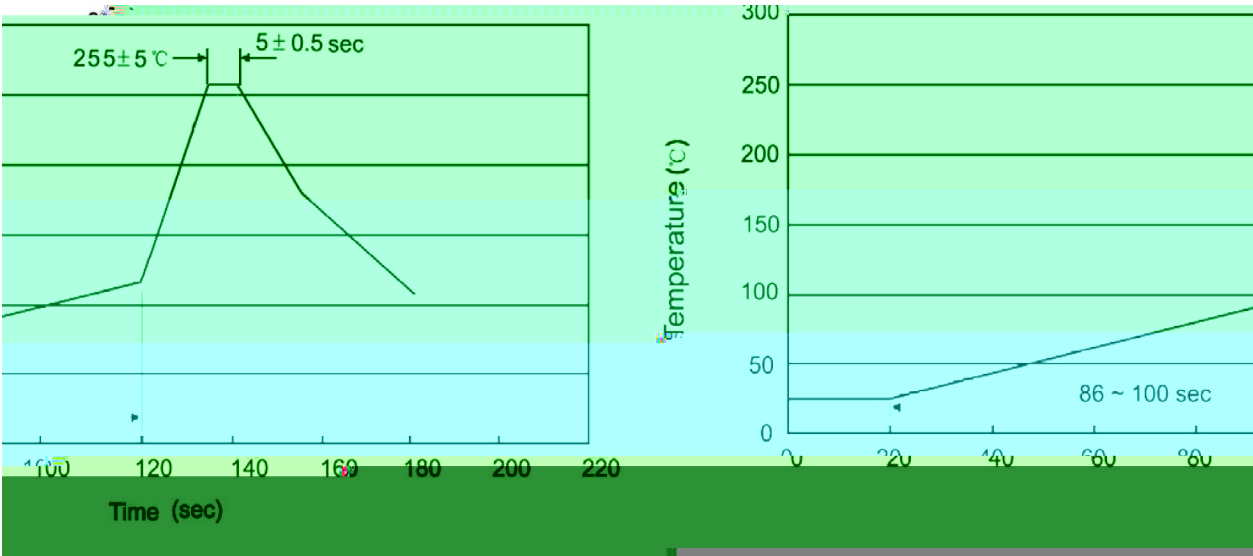
Note:

BR: Company Code.

C3852: Product Type.

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

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



1 25 150% 60 90sec;

Note:
1.Preheating:25~150%