

/ Descriptions

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

/ Features

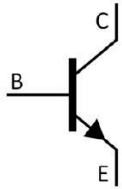
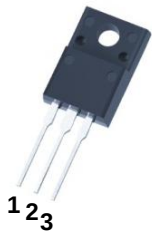
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High voltage high speed switching.

/ Applications

GF0GF

Switching regulator applications, High voltage switching applications, High speed DC-DC converter applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions .

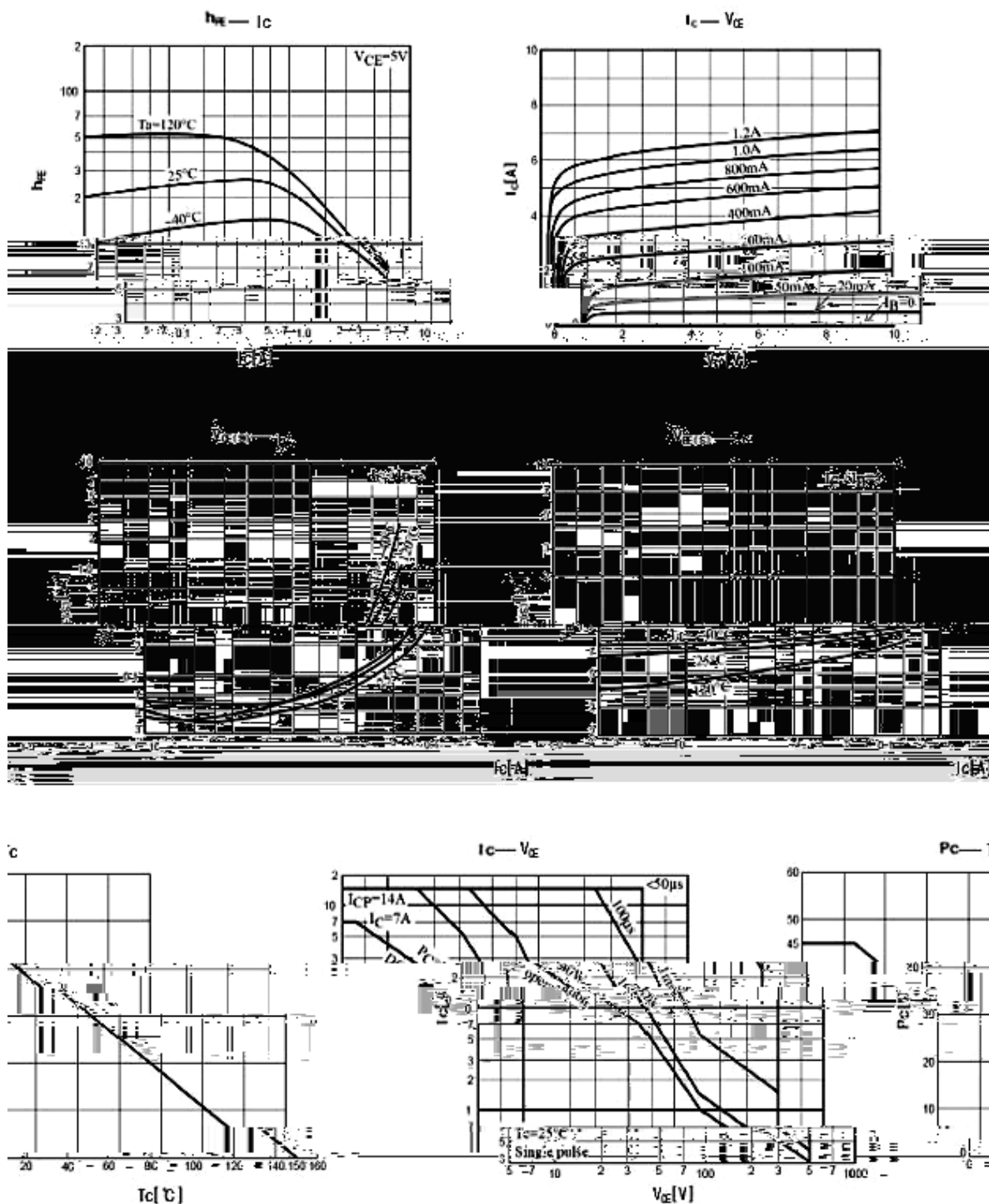
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	900	V
Collector to Emitter Voltage	V_{CEO}	500	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	7.0	A
Peak Collector Current	I_{cm}	14	A
Collector Power Dissipation	$P_C(T_c=25)$	45	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

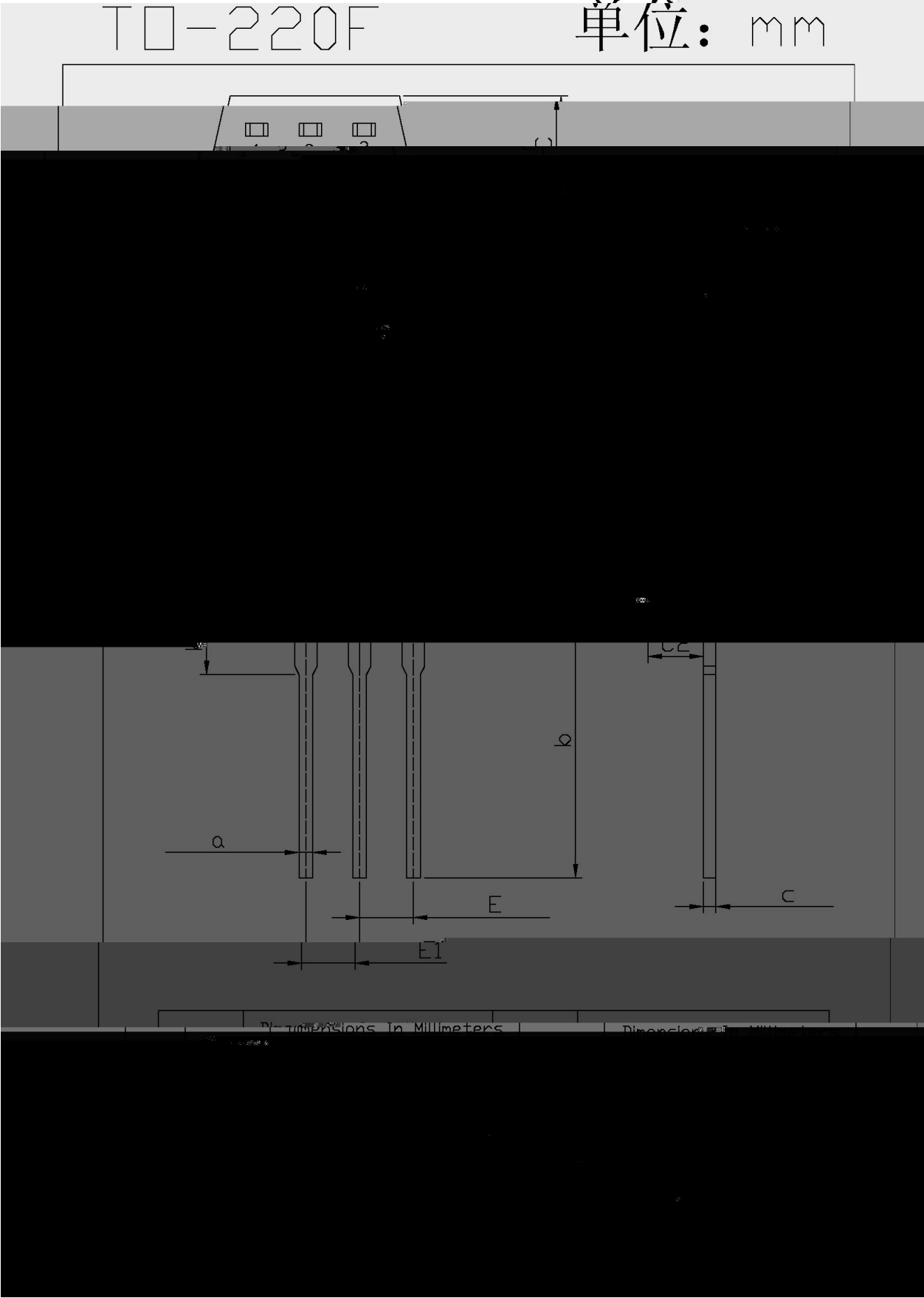
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=1mA$ $I_B=0$	900			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	500			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=500V$ $I_E=0$			250	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5V$ $I_C=0$			10	μA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=900V$ $I_C=0$			100	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=0.6A$	15		40	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=3.0A$	8.0			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3.0A$ $I_B=0.6A$			2.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3.0A$ $I_B=0.6A$			1.5	V
Collector output capacitance	C_{OB}	$V_{CB}=10V$ $f=1MHz$		80		pF
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=0.6A$		18		MHz
Storage Time	t_S	$V_{CC}=5V$ (UI9600)	3.0		8.0	μs
Fall Time	t_F				0.8	μs

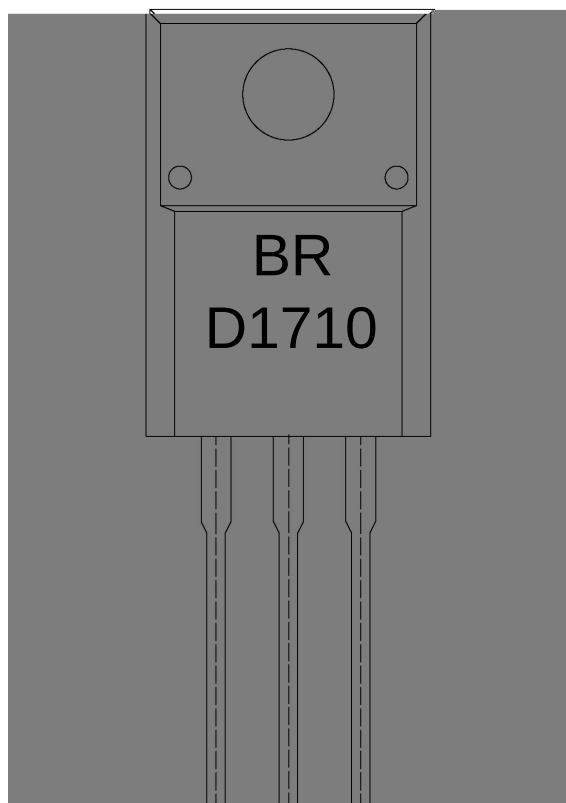
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



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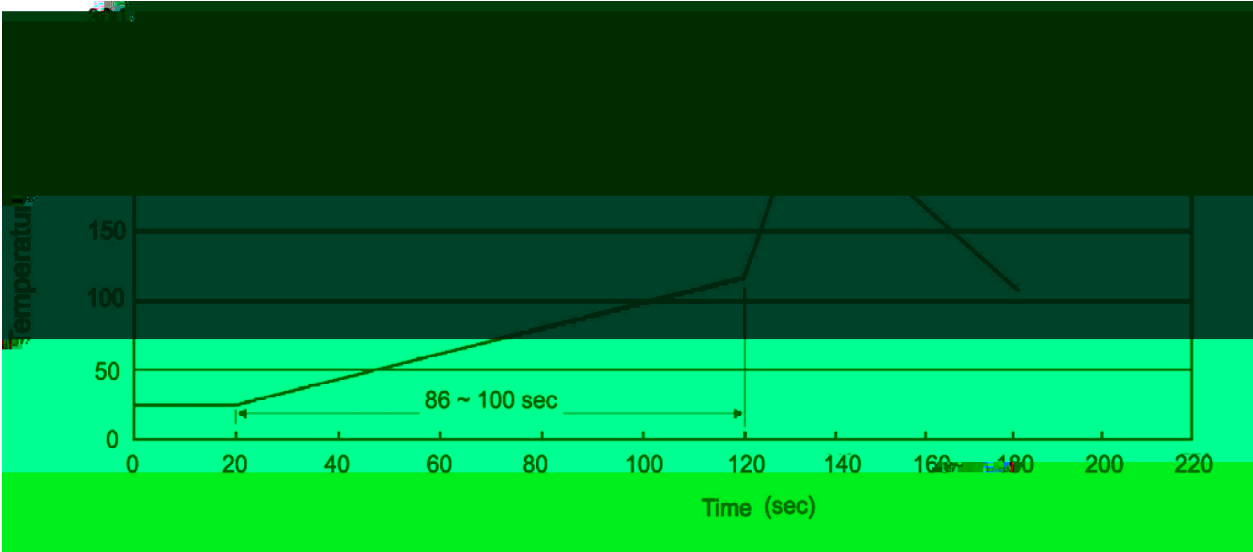
Note:

BR: Company Code.

D1710: Product Type.

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

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



Note:
1.Preheating:25~150%

1 25 150% 60 90sec;