VRW056 ṂṂÞ QSQ ÆṀч s ‖ ㄱ Silicon NPN transistor in a SOT-23 Plastic Package.

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High P_C and h_{FE}, excellent h_{FE} 9R{-0

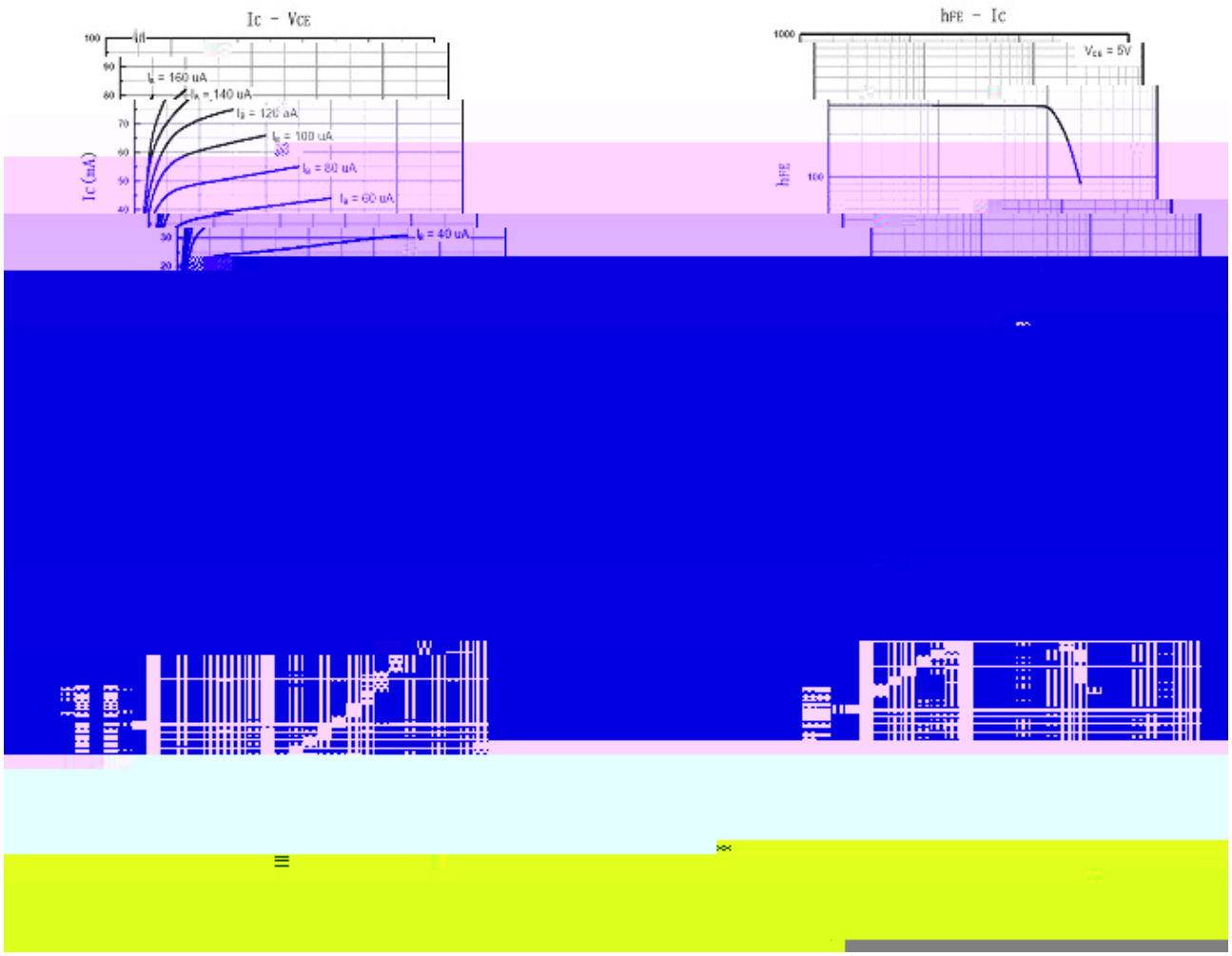
ώ ̈ Ξ ̃Ạ / Absolute Maximum Ratings(Ta=25 ɹ)

v ̈Ω Parameter	ϒ N Symbol	̈Ω Ö Rating	D Ꮋ Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

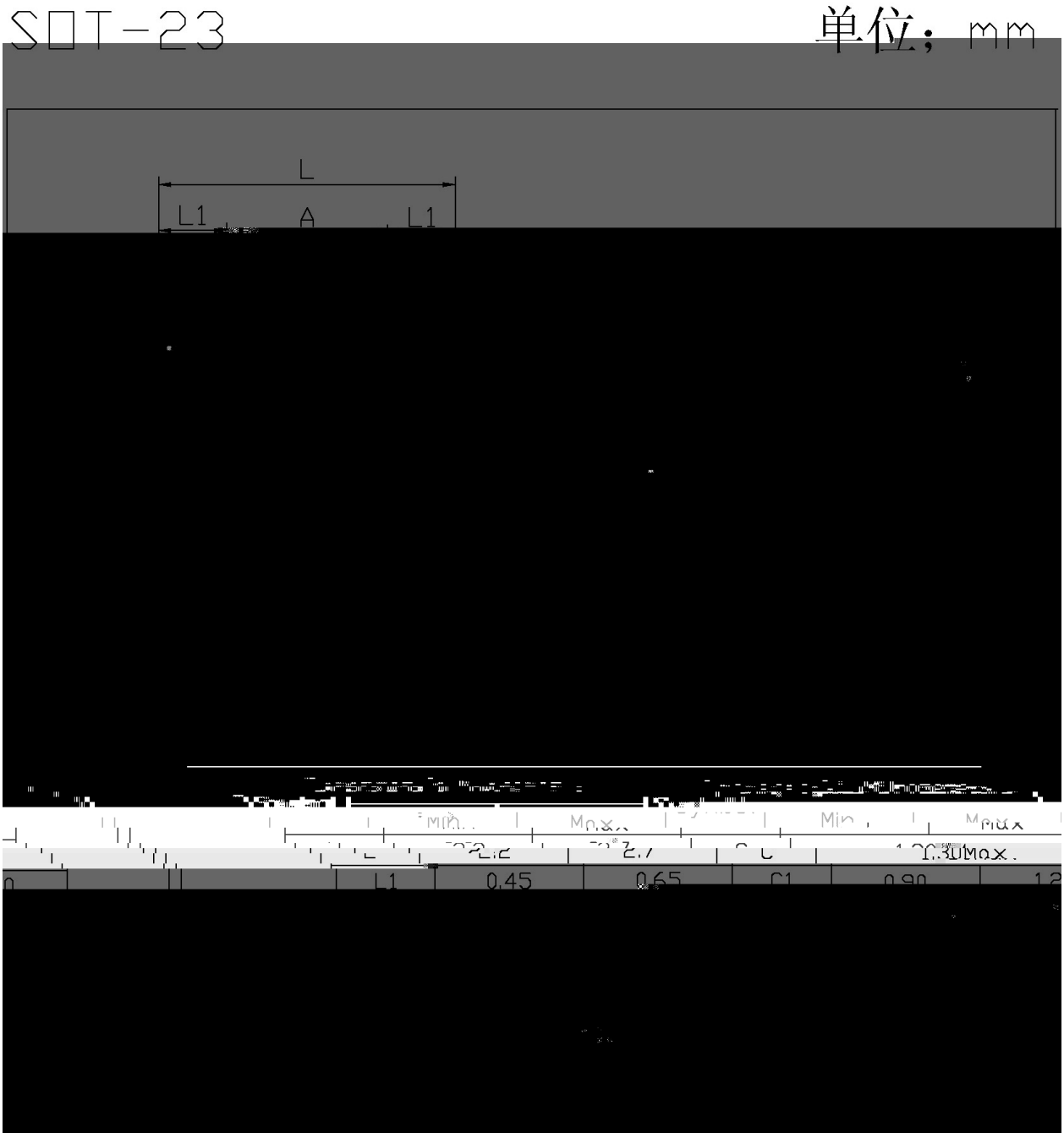
≠ ∧ Ξ ̃Ạ / Electrical Characteristics(Ta=25 ɹ)

v ̈Ω Parameter	ϒ N Symbol	⅄ ː ̌ ϯ Test Conditions	ώ ṇ Ö Min	Ɛ ʒ Ö Typ	ώ ᶻ Ö Max	D Ꮋ Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=0.1mA I_E=0	50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=0.1mA I_C=0	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=50V I_E=0			0.05	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5.0V I_C=0			0.05	A
DC Current Gain	h_{FE}	V_{CE}=5.0V I_C=1.0mA	60		1000	
Collector-Emitter Saturation voltage	$V_{CE(sat)}$	I_C=100mA I_B=5.0mA		0.14	0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=100mA I_B=5.0mA		0.84	1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE}=5.0V I_C=2.0mA		0.63	0.7	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=10mA	150	270		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz		2.2	3.5	pF
Noise Figure	NF	V_{CE}=5.0V I_C=-0.2mA R_g=2.0K f=1.0KHz Δf=200Hz		0.9	10	dB

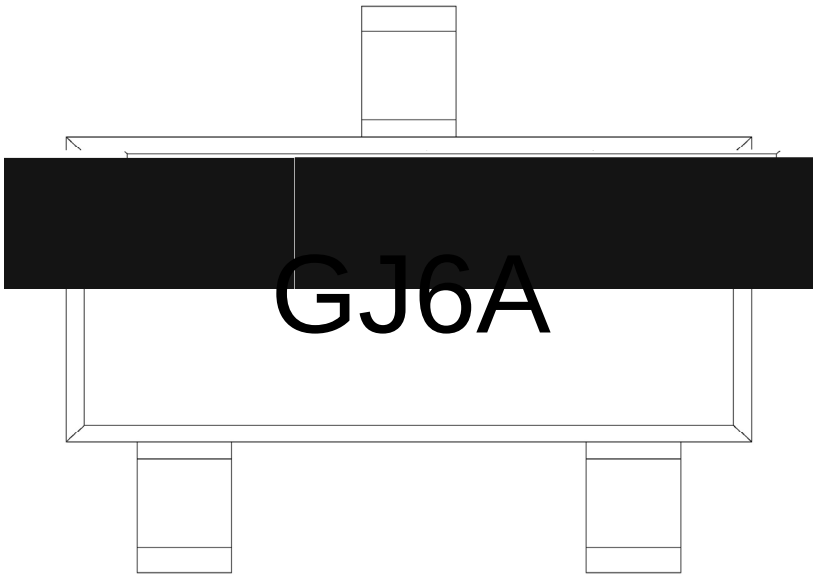
≠ ∃ ÃΈ ℵ ƒ / Electrical Characteristic Curve



ᵘ ĖÒĻ ʃ / Package Dimensions



ł. Ł Ω / Marking Instructions



ب ˝ χ

J χ ᵻ ή ᶠ ᵝ Ꮁ

𝕄9 χ ᵻ ȝ ᴺ Ꮁ

D χ ᵻ h_{FE} ⁶ Ꮶ Ꮁ

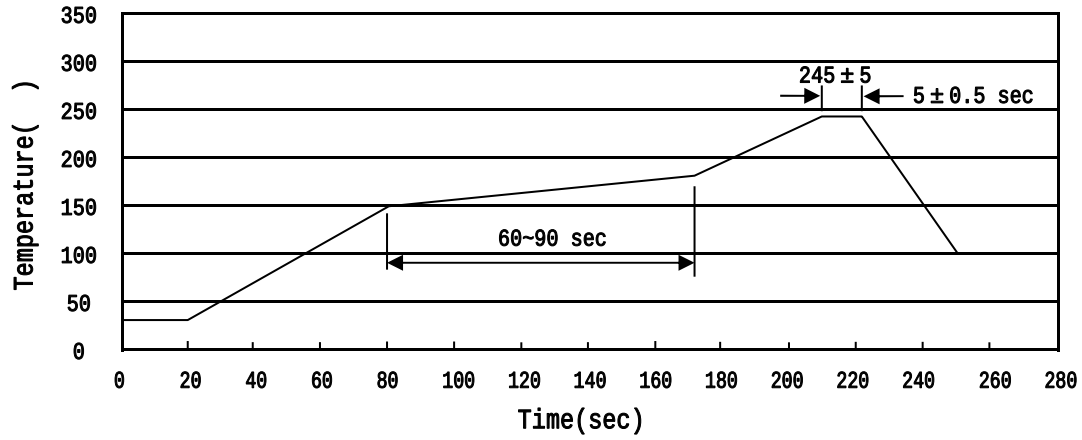
Note:

J χ HF Product Code

𝕄9 χ Product Type Code

D χ h_{FE} Classifications Symbol Code

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ᴗ ˝ χ

1 Ĺ ♬ □ ẙ 150 Ḱ 180 ɬ ı `H ɟ 60 Ḱ 90sec;

2 Š Ë □ ẙ 245 ° 5 ɬ ı `H ɟ `Y ʌ ѭ 5 ° 0.5sec;

3 ì ˙ ⅵ ˛ ɔ ѕ ẙ ѭ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:150~180 ɬ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

⅃ ü ɋ ⁼ `Y Ţ / Resistance to Soldering Heat Test Conditions

□ ẙ χ 260 ° 5 ɬ `H ɟ χ 10 ° 1 sec. Temp.:260±5 Time:10±1 sec

ɒ Ŀ ≮ — / Packaging SPEC.

ɔ ` ɣ Ŀ / REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

ä ѵ Ⱡ Ѽ / Notices