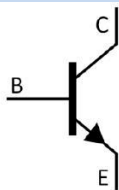


VRW056 QSQ Silicon NPN transistor in a SOT-23 Plastic Package.

/

High voltage, excellent h_{FE} linearity.

General power amplifier application and low speed switching.



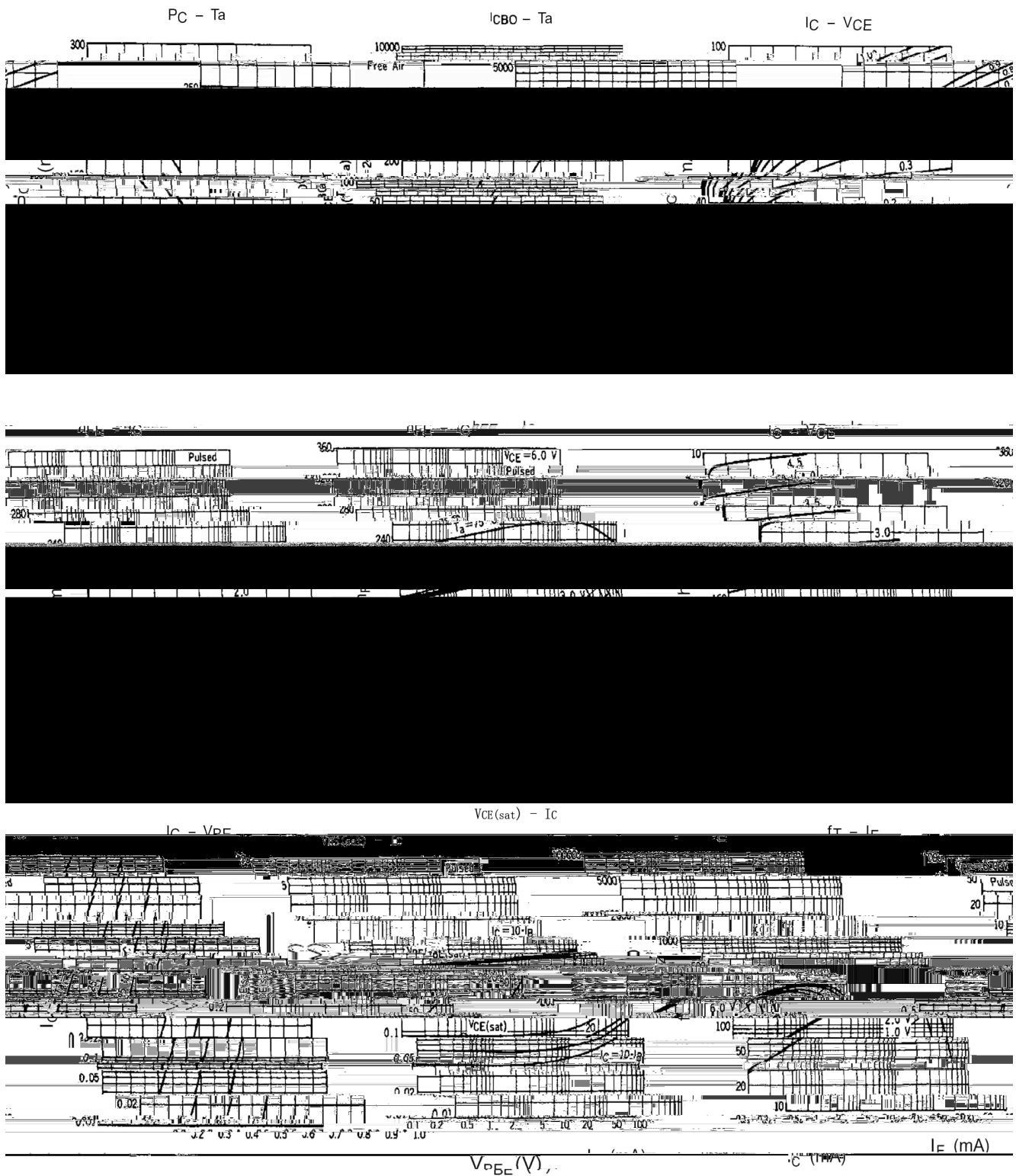
PIN1 Base PIN 2 Emitter PIN 3 Collector

h_{FE} Classifications Symbol	R	Q	P	K
h_{FE} Range	90~180	135~270	200~400	300~600
Marking	HCRR	HCRQ	HCRP	HCRK

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	150	mA
Collector Base - Continuous	I_B	20	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

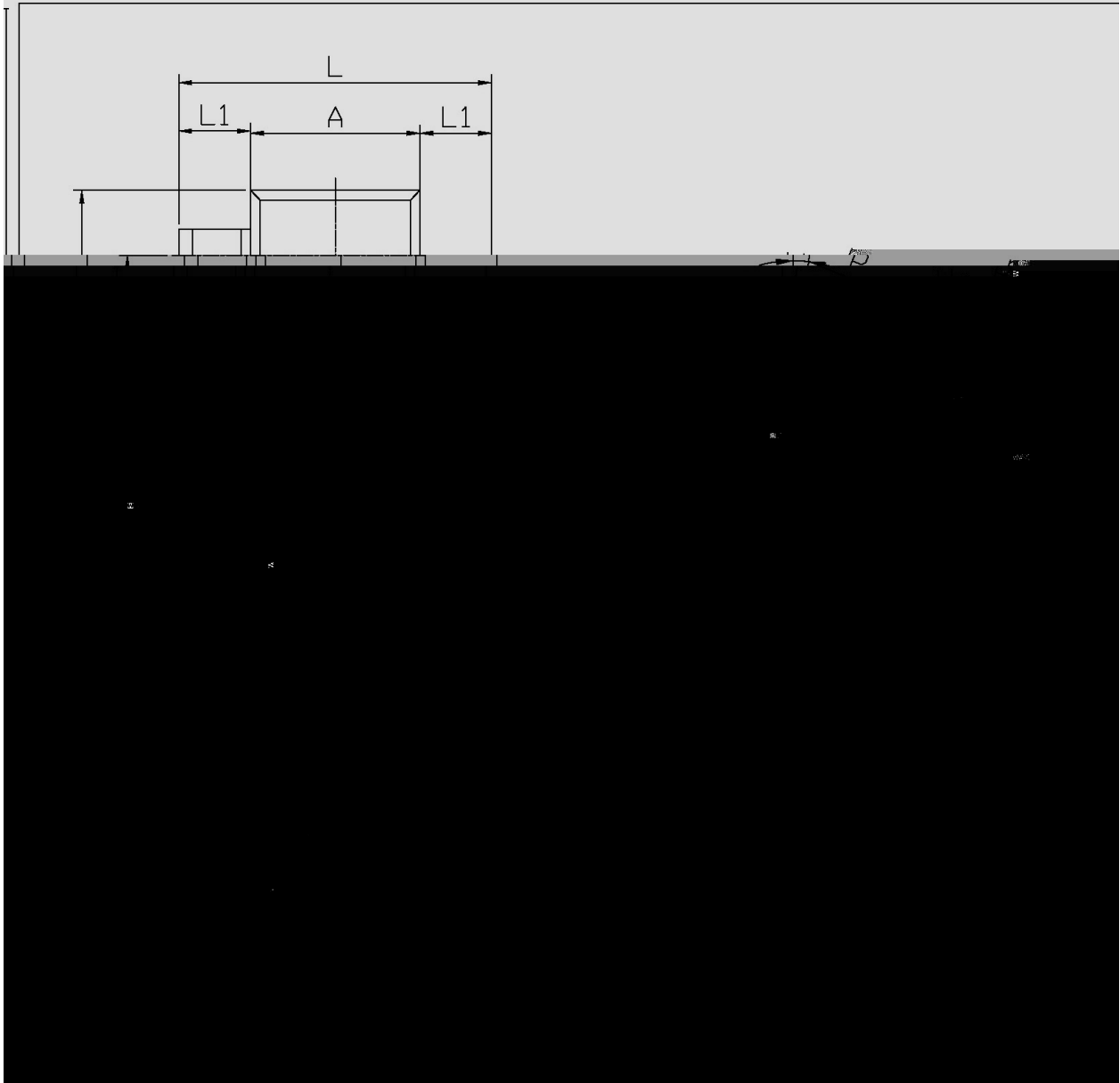
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=60V$ $I_E=0$			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=6.0V$ $I_C=1.0mA$	90		600	
	$h_{FE(2)}$	$V_{CE}=6.0V$ $I_C=0.1mA$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.15	0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.86	1.0	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=6.0V$ $I_C=1.0mA$		0.62	0.65	V
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=10mA$	150	250	450	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=6.0V$ $I_E=0$ $f=1.0MHz$		3.0	4.0	pF
Noise Figure	NF	$V_{CE}=6.0V$ $I_C=0.1mA$ $R_g=2.0K$ $f=1.0KHz$		0.8	15	dB

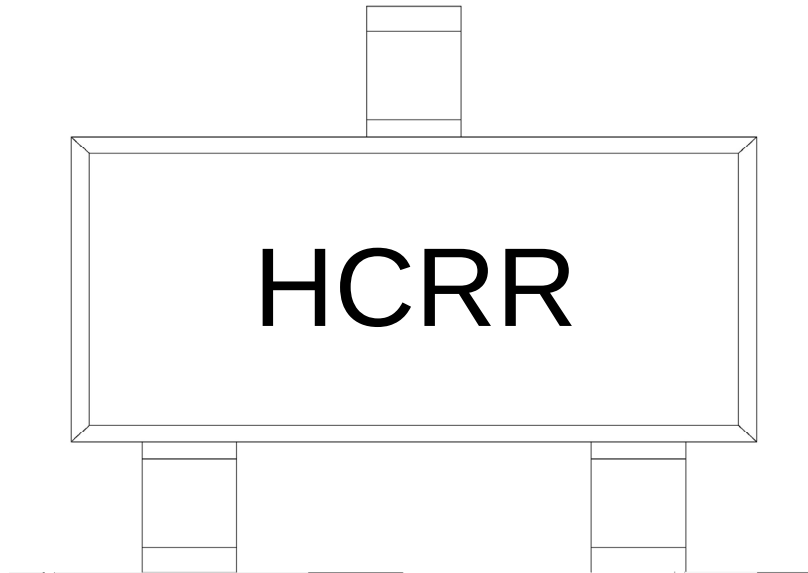
Rev.F Apr.-2017



SOT-23

单位: mm





H

CU

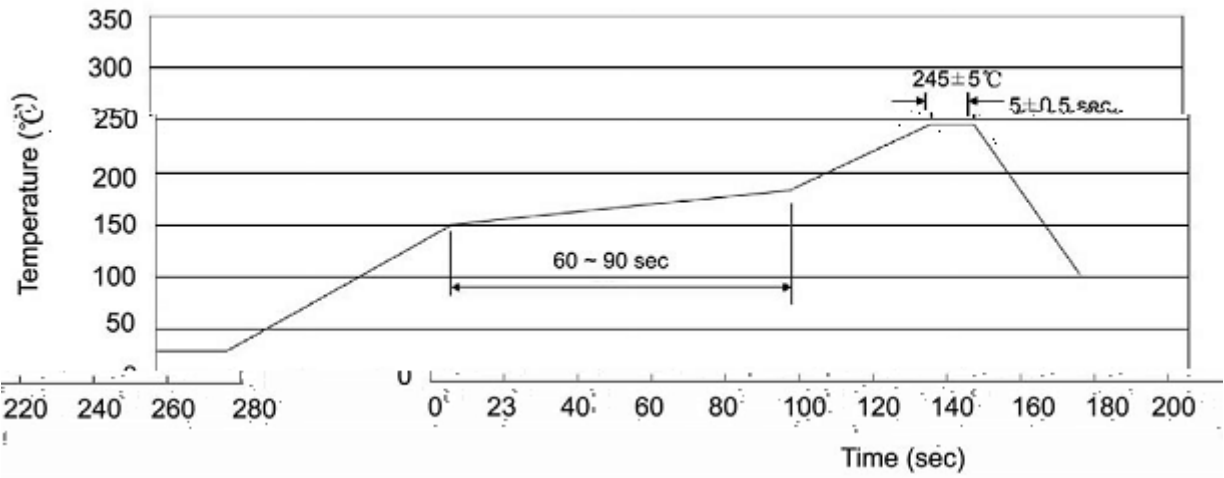
U h_{IH}

Note:

H: Company Code.

CR: Product Type Code.

R: h_{FE} Classifications Symbol Code.



Note:

- 1

25 150

60 90sec;

1.Preheating:25~150 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱
						"		