

/ Descriptions

VRW-56

SQS

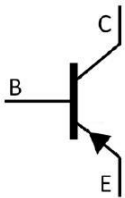
Silicon PNP transistor in a SOT-23 Plastic Package.

/ Features

Low current, low voltage.

/ Applications

General purpose switching and amplifier applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Base

PIN 2 Emitter

PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Range	215~500
Marking	HH2

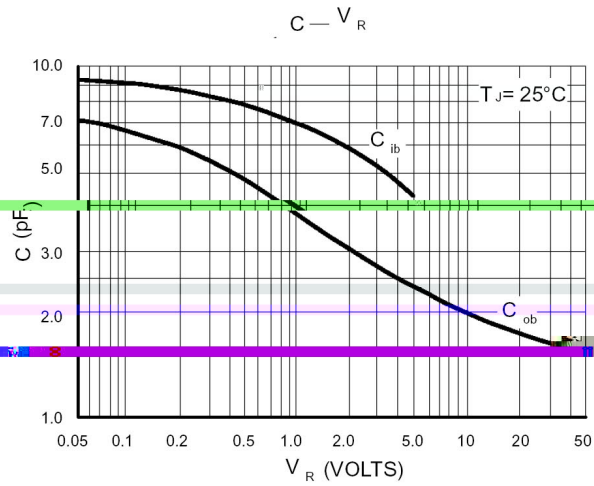
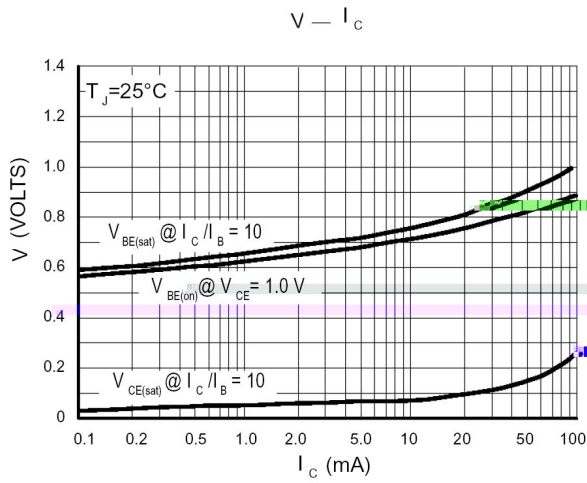
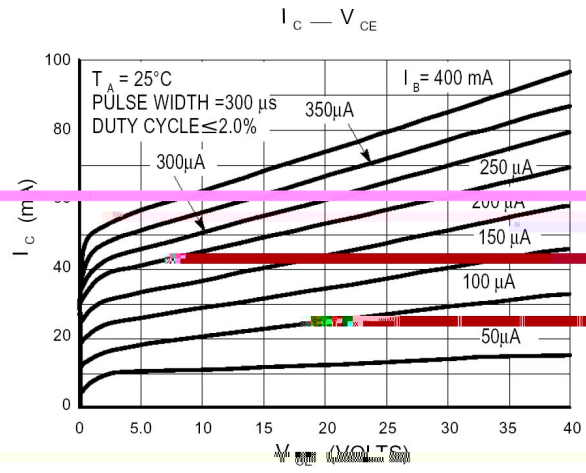
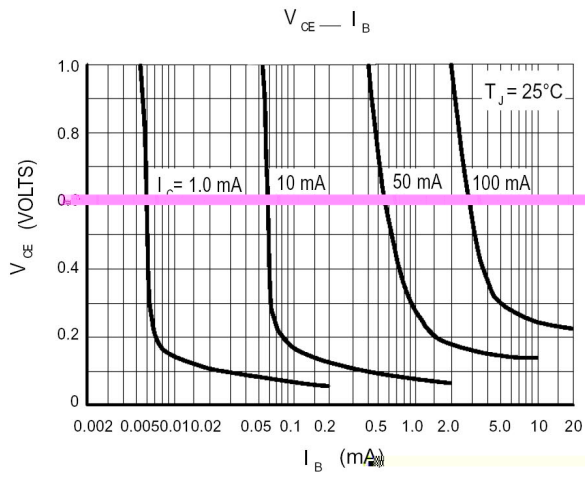
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	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(DC)	I_C	-100	mA
Peak Collector Current	I_{CM}	-200	mA
Peak Base Current	I_{BM}	-200	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-100\mu A$ $I_E=0$	-50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-500\mu A$ $I_B=0$	-45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-100\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-20 V$ $I_E=0$			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-5.0V$ $I_C=-2.0mA$	215		500	
	$h_{FE(2)}$	$V_{CE}=-5.0V$ $I_C=-10\mu A$		150		
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-10mA$ $I_B=-0.5mA$		-80	-300	mV
	$V_{CE(sat)(2)}$	$I_C=-50mA$ $I_B=-2.5mA$		-150		mV
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-10mA$ $I_B=-0.5mA$		-720		mV
	$V_{BE(sat)(2)}$	$I_C=-50mA$ $I_B=-2.5mA$		-810		mV
Base-Emitter On Voltage	V_{BE}	$V_{CE}=-5.0V$ $I_C=-2.0mA$	-600		-750	mV
Transition Frequency	f_T	$I_C=-10mA$ $V_{CE}=-5.0V$ $f=100MHz$	100			MHz
Collector Capacitance	C_C	$V_{CB}=-10V$ $I_E=0$ $f=1MHz$		4.5		pF
Noise Figure	NF	$V_{CE}=-5.0V$ $I_C=-200\mu A$ $R_S=2K\Omega$ $f=1KHz$ $B=200Hz$			10	dB

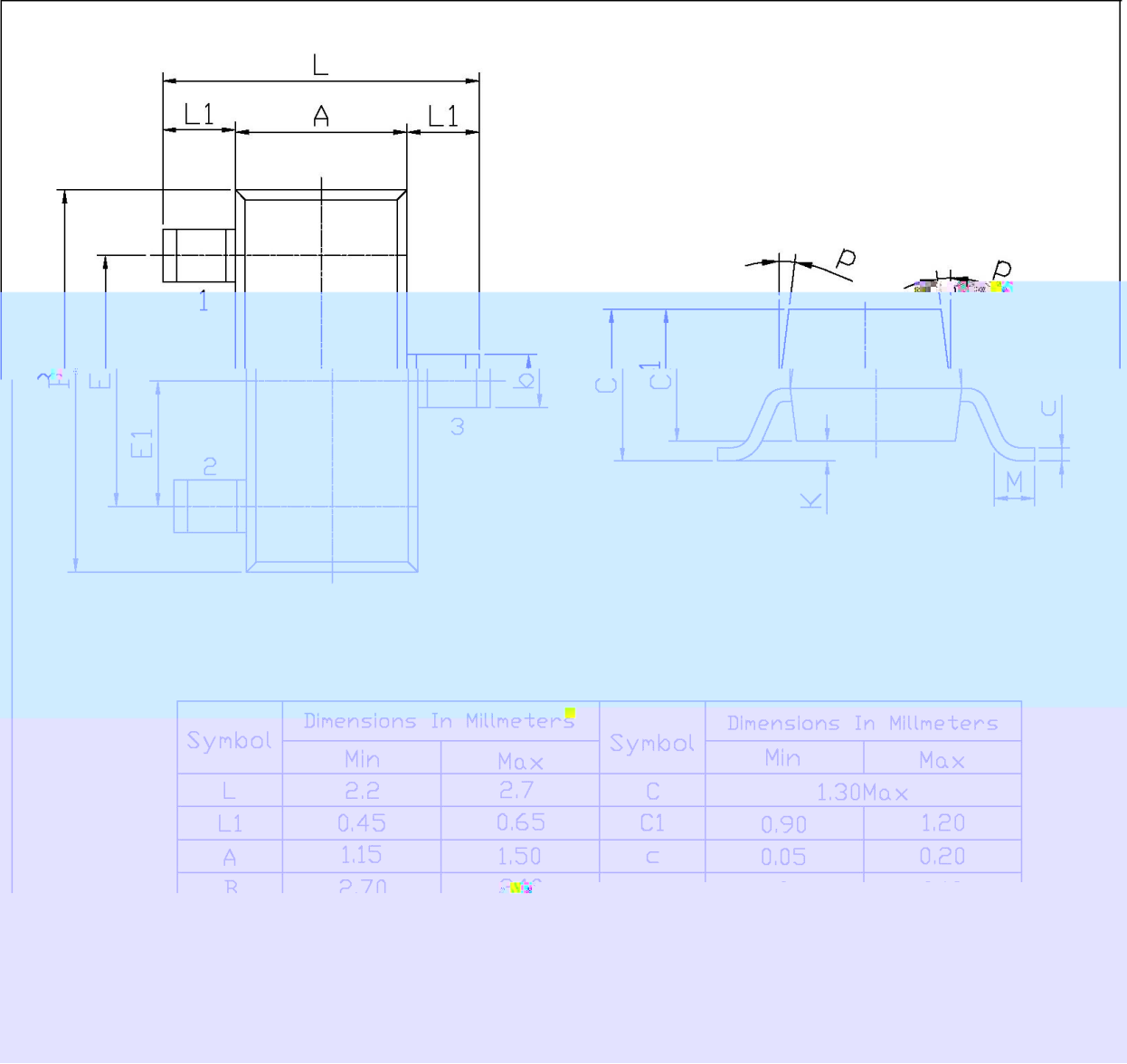
I Electrical Characteristic Curve



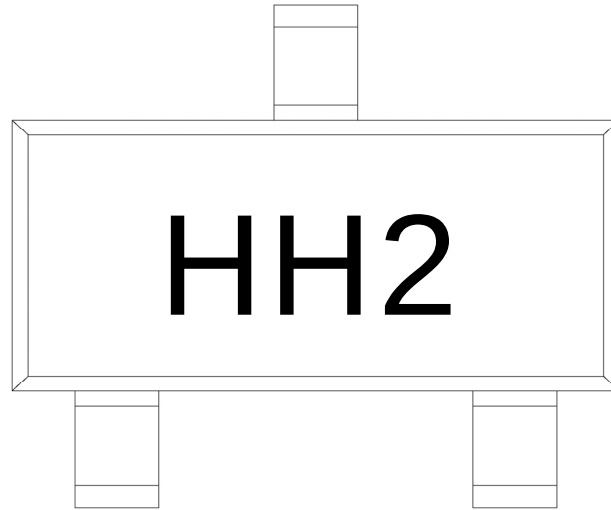
/ Package Dimensions

SOT-23

单位：mm



/ Marking Instructions



H

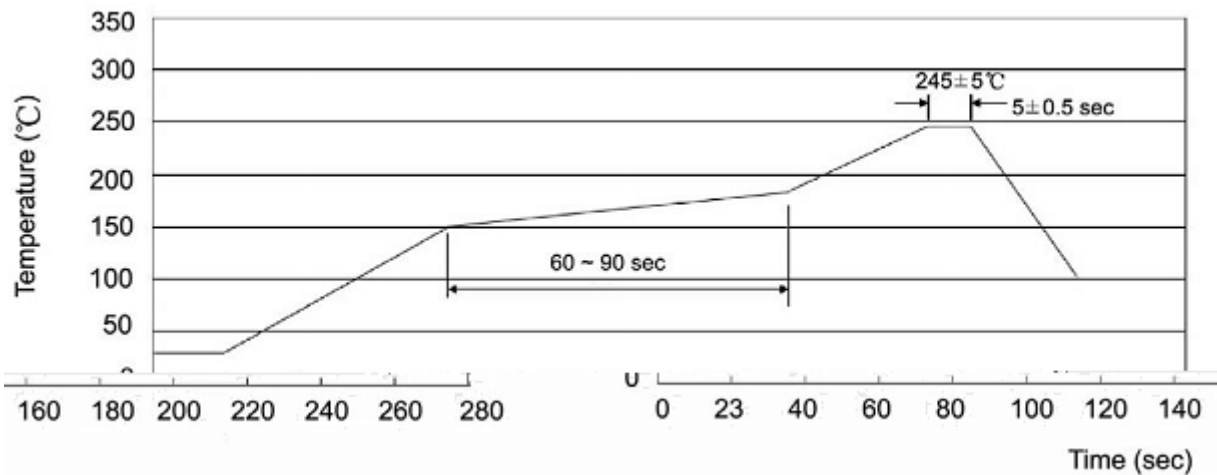
H2

Note:

H: Company Code

H2: Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



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. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ 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
						"		

/ Notices