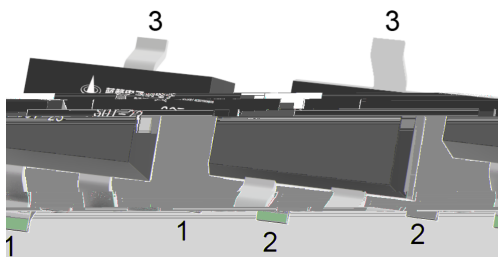
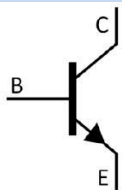


VRW056 QSQ Silicon NPN transistor in a SOT-23 Plastic Package.

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High voltage, Low saturation voltage, HF Product.

High voltage control circuit.

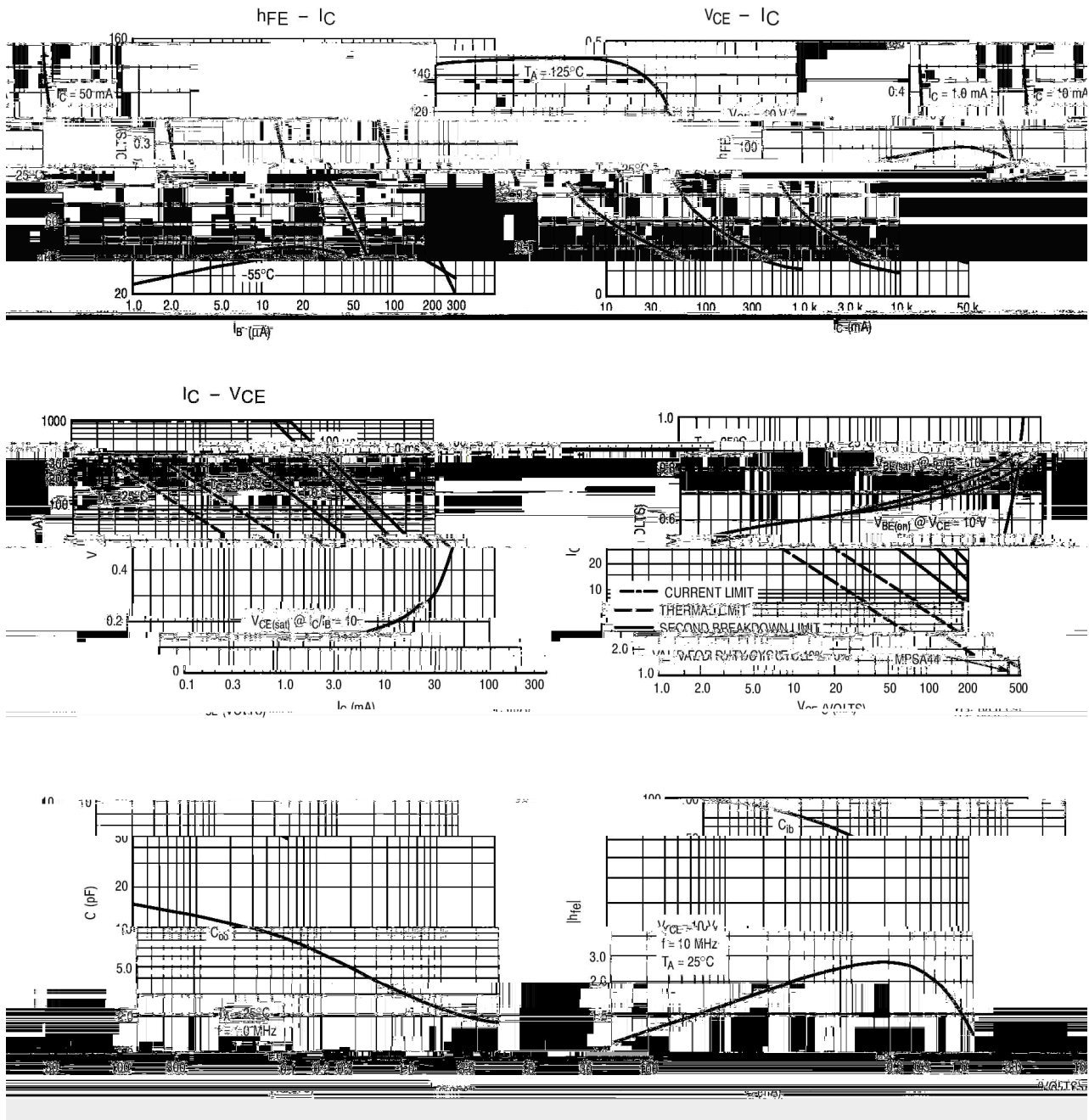


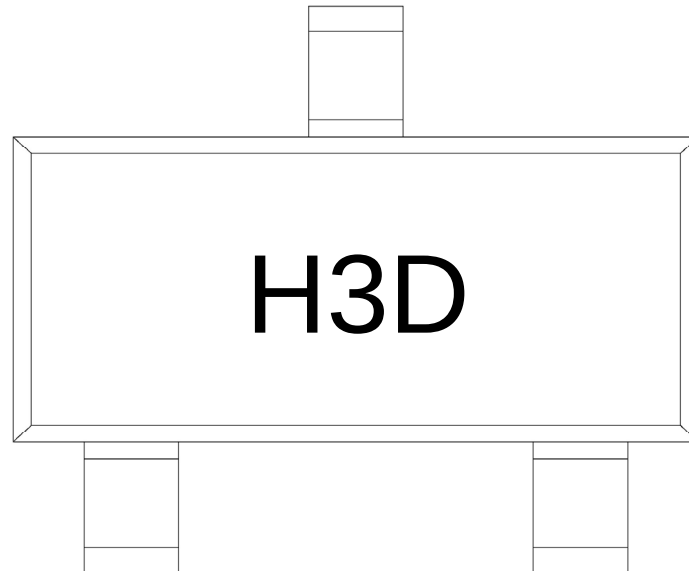
PIN 1 Base PIN 2 Emitter PIN 3 Collector

h_{FE} Range	50 200
Marking	H3D

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	500	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	300	mA
Collector Power Dissipation	P_C	350	mW
Collector Power Dissipation	$P_{C(TC=25^\circ)}$	1.5	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	500			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	400			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=400V$ $I_E=0$			0.1	μA
Collector Cut-Off Current	I_{CES}	$V_{CE}=400V$ $V_{BE}=0$			1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=10V$ $I_C=10mA$	50		200	
	$h_{FE(2)}$	$V_{CE}=10V$ $I_C=100mA$	40			
	$h_{FE(3)}$	$V_{CE}=10V$ $I_C=50mA$	45			
	$h_{FE(4)}$	$V_{CE}=10V$ $I_C=1.0mA$	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=1.0mA$ $I_B=0.1mA$			0.4	V
	$V_{CE(sat)(2)}$	$I_C=10mA$ $I_B=1.0mA$			0.5	V
	$V_{CE(sat)(3)}$	$I_C=50mA$ $I_B=5.0mA$			0.75	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			0.75	V
Output Capacitance	C_{ob}	$V_{CB}=20V$ $I_E=0$ $f=1.0MHz$			7.0	pF





K

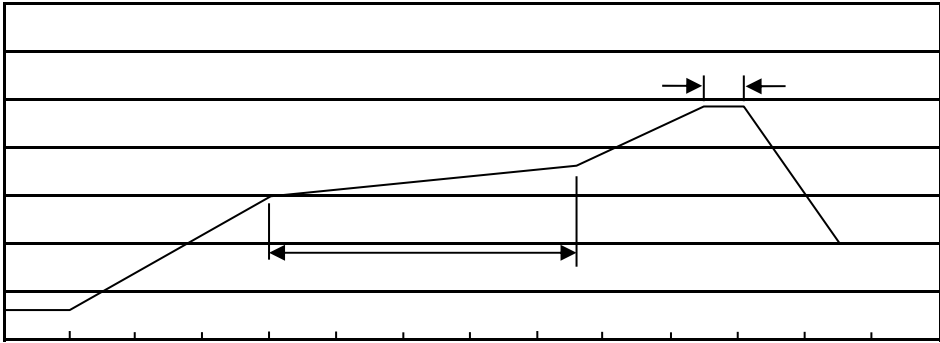
3D

Note:

K Company Code

3D Product Type Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180℃

60 90sec;

1.Preheating:150~180℃, 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	Units					Dimension (unit mm ³)		
	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