

/ Descriptions

SOT-323 NPN Silicon NPN transistor in a SOT-323 Plastic Package.

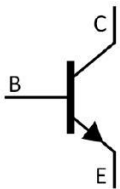
/ Features

KTA2015
Complementary to KTA2015

/ Applications

General purpose application, switching application.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ Marking

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	70~140	120~240
Marking	HWO	HWY

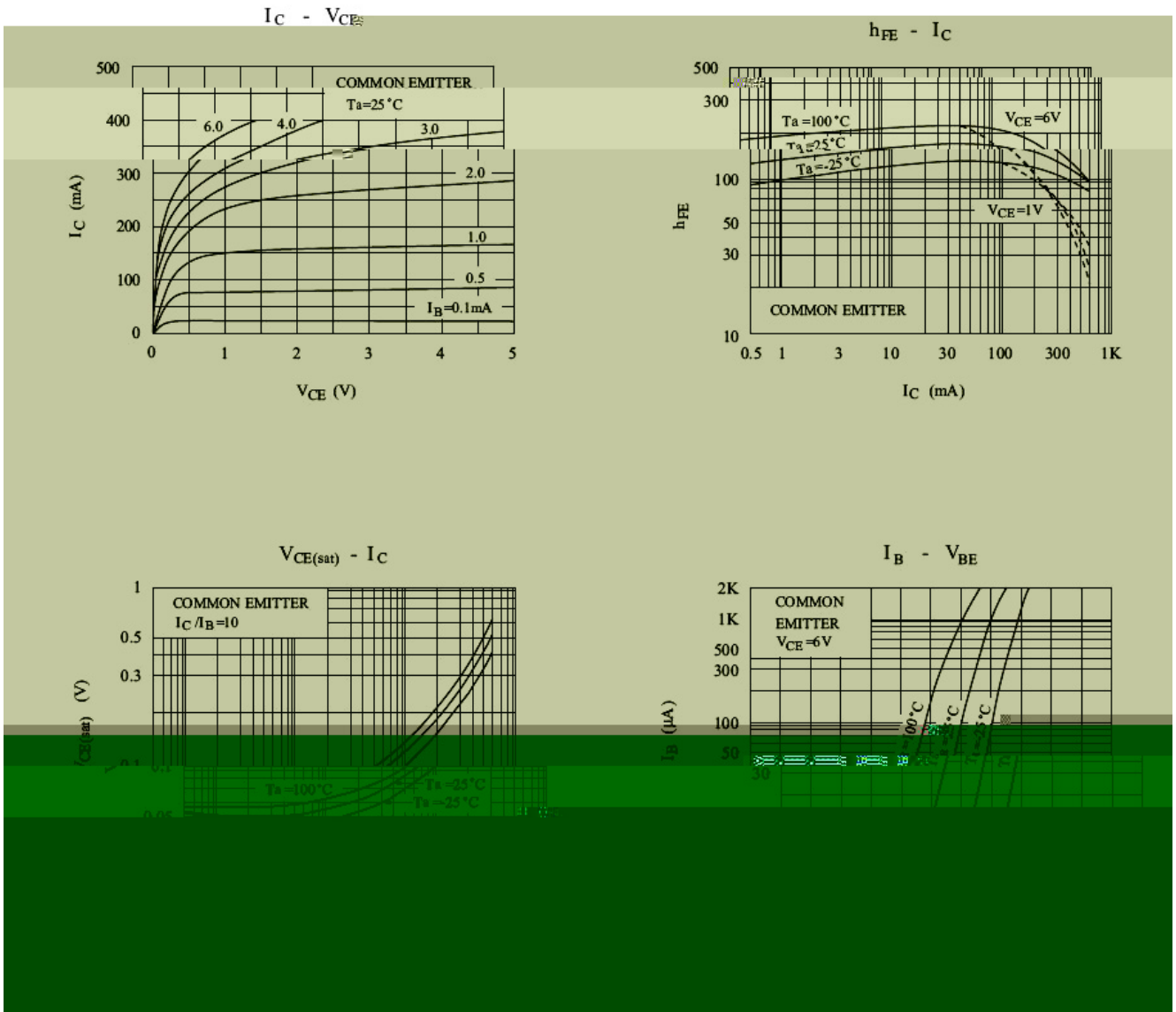
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	500	mA
Collector Base - Continuous	I_B	50	mA
Collector Power Dissipation	P_C	100	mW
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 Cut-Off Current	I_{CBO}	$V_{CB}=35V$ $I_E=0$			0.1	μA
Emitter to Base Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	70		240	
	$h_{FE(2)}$	$V_{CE}=6.0V$ $I_C=400mA$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.1	0.25	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=1.0V$ $I_C=100mA$		0.8	1	V
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=20mA$		300		MHz
Collector output capacitance	C_{ob}	$V_{CE}=6.0V$ $I_E=0$ $f=1.0MHz$		7		pF

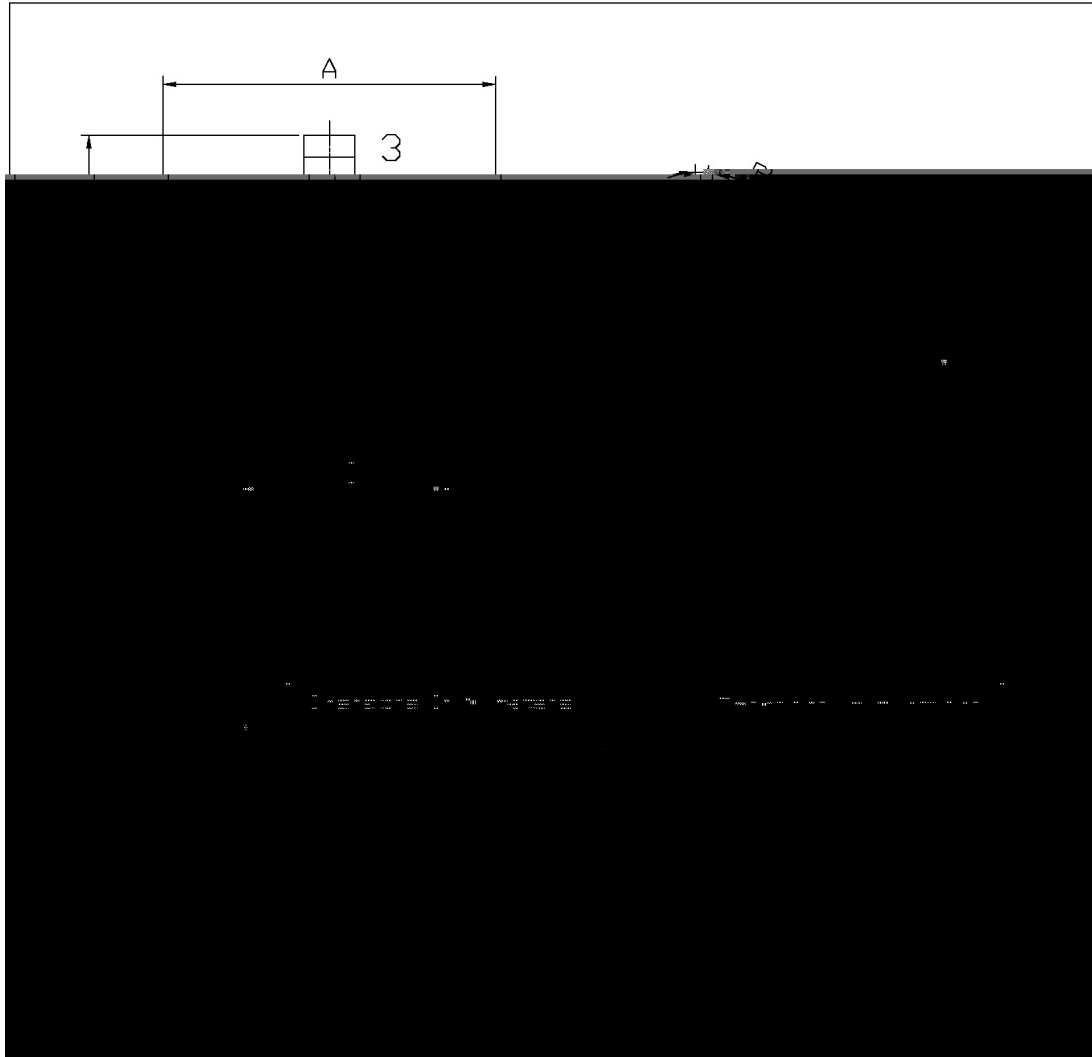
/ Electrical Characteristic Curve



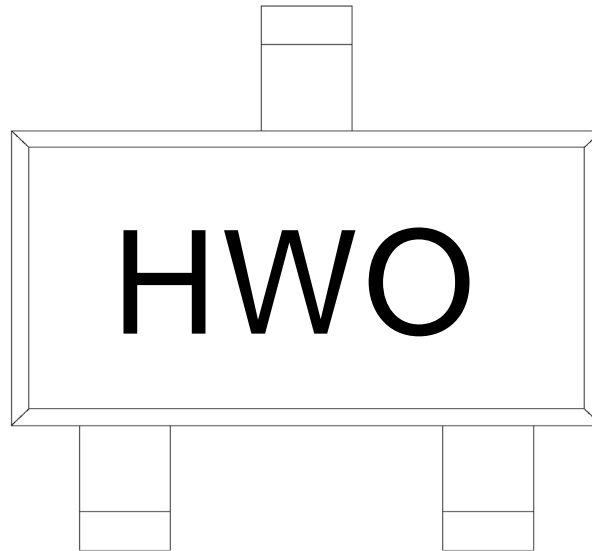
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



H

W

O h_{FE}

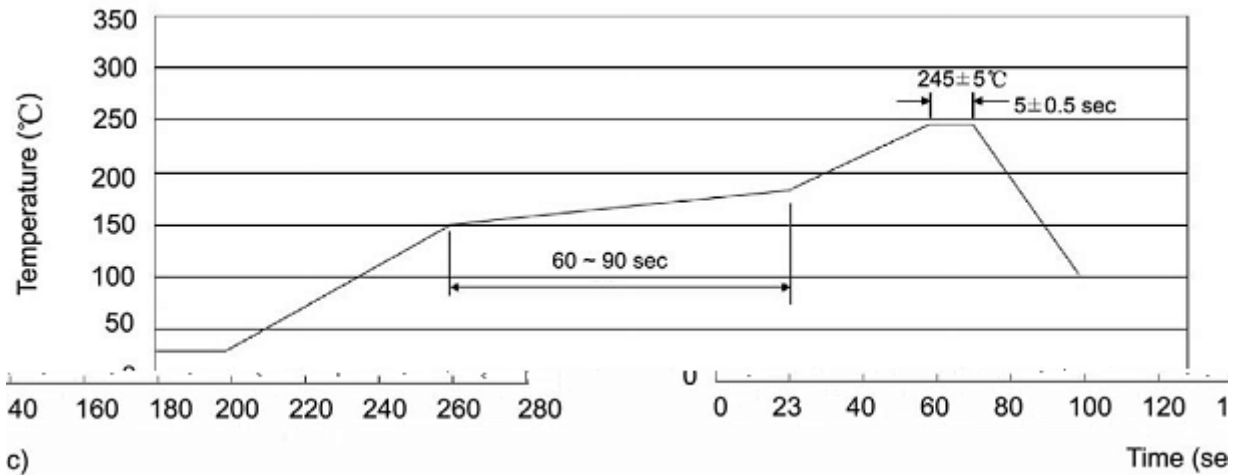
Note:

H: Company Code.

W: Product Type.

O: h_{FE} Classifications Symbol

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



c)

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)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-323	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices