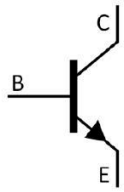
SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

, KTA1505

Excellent hFE linearity, complementary pair with KTA1505.

General amplifier and switching application.



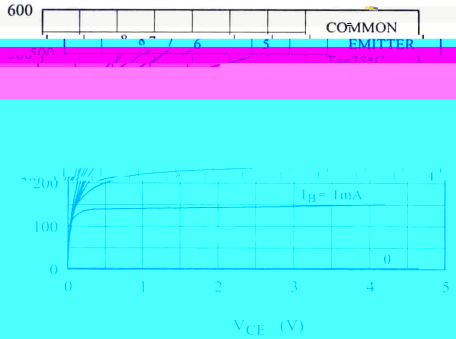
PIN 1 Base PIN 2 : Emitter PIN 3 Collector

h_{FE} Classifications Symbol	O	Y	GR
h_{FE} Range	70 140	120 240	200 400
Marking	HWO	HWY	HWG

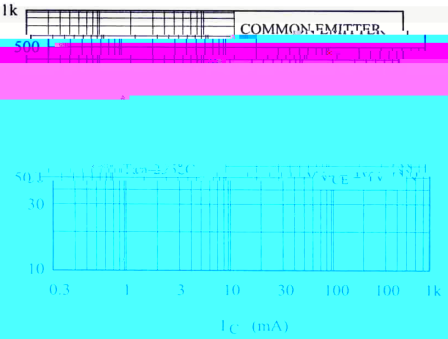
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	500	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=35V I_E=0			0.1	μA
Emitter Cut-Off 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		400	
	$h_{FE(2)}$	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	1.0	V
Transition Frequency	f_T	V_{CE}=6.0V I_C=20mA		300		MHz
Collector Output Capacitance	C_{ob}	V_{CE}=6.0V f=1.0MHz		7.0		pF

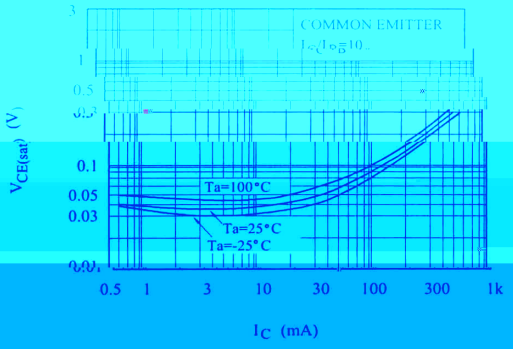
I_C - V_{CE}



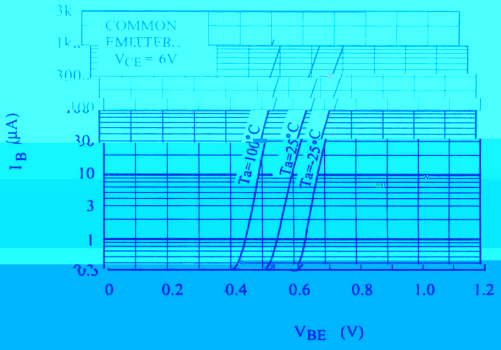
h_{FE} - I_C



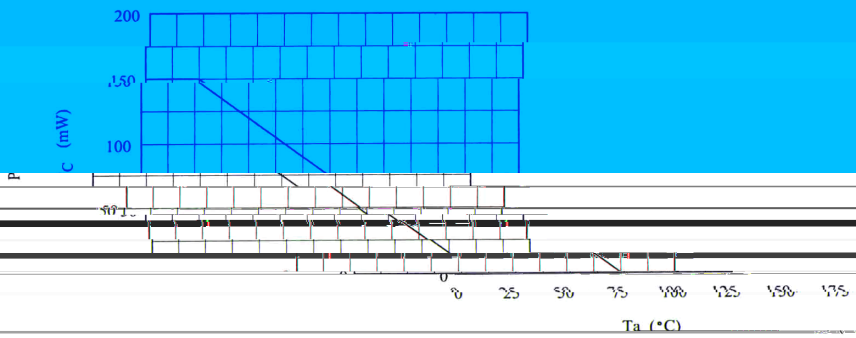
$V_{CE(sat)}$ - I_C



I_B - V_{BE}

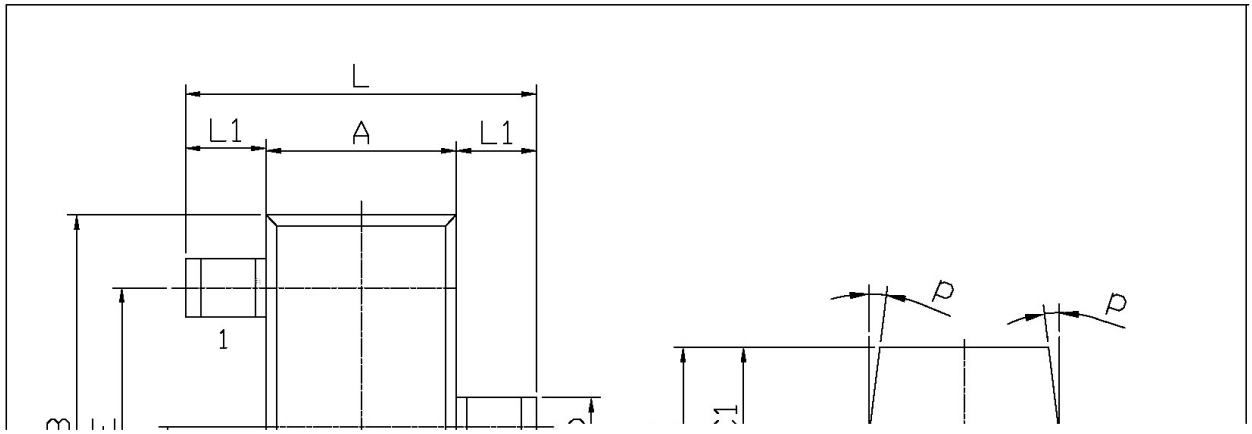


P_C - Ta

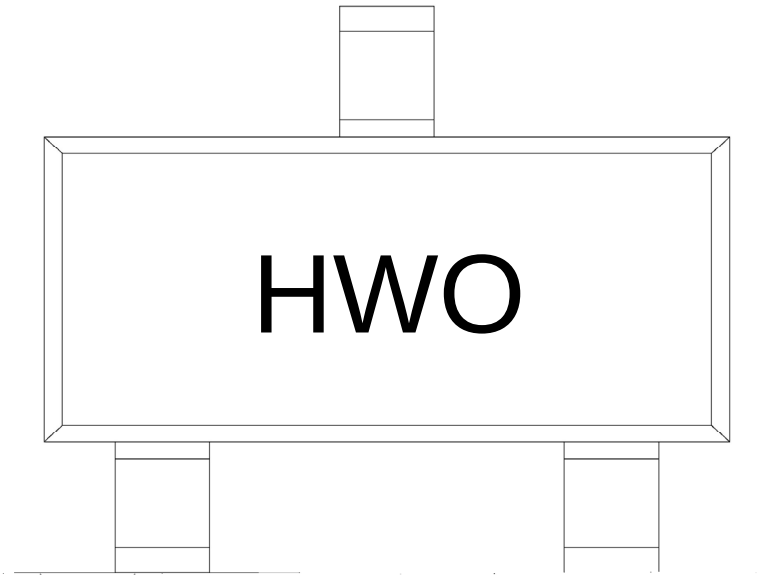


SOT-23

单位：mm



L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	C	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			



H

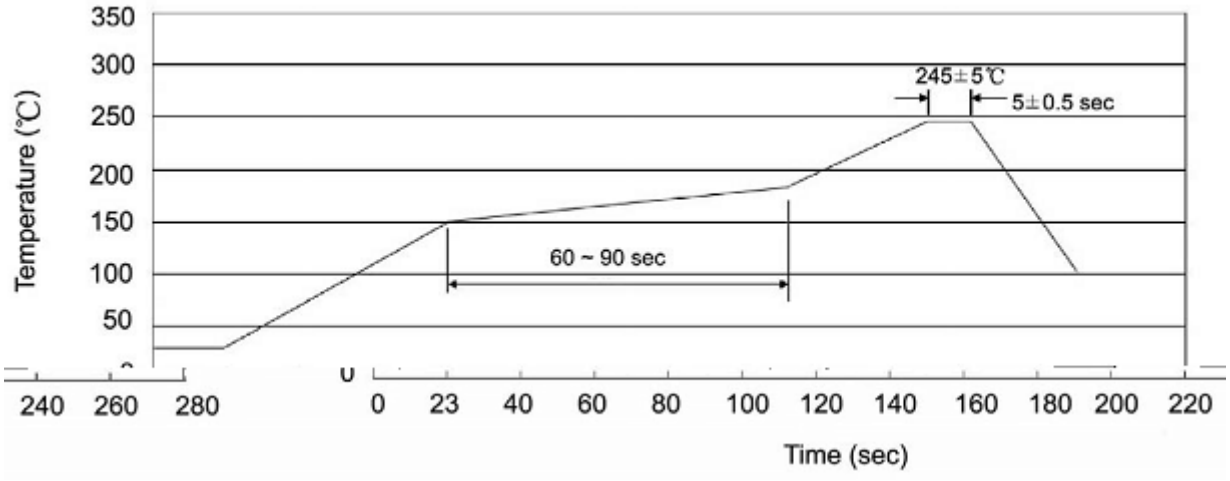
W

O h_{FE}

Note:

H	Company Code
W	Product Type
O	h_{FE} Classifications Symbol

Temperature Profile for IR Reflow Soldering(Pb-Free)



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)		
	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-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205