

**/ Descriptions**

Silicon NPN transistor in a SOT-23 Plastic Package.

**/ Features**

Excellent  $h_{FE}$  linearity, complementary pair with KTA1505.

**/ Applications**

General amplifier and switching application.

**/ Equivalent Circuit**



**/ Pinning**



PIN 1 Base      PIN 2 : Emitter      PIN 3 Collector

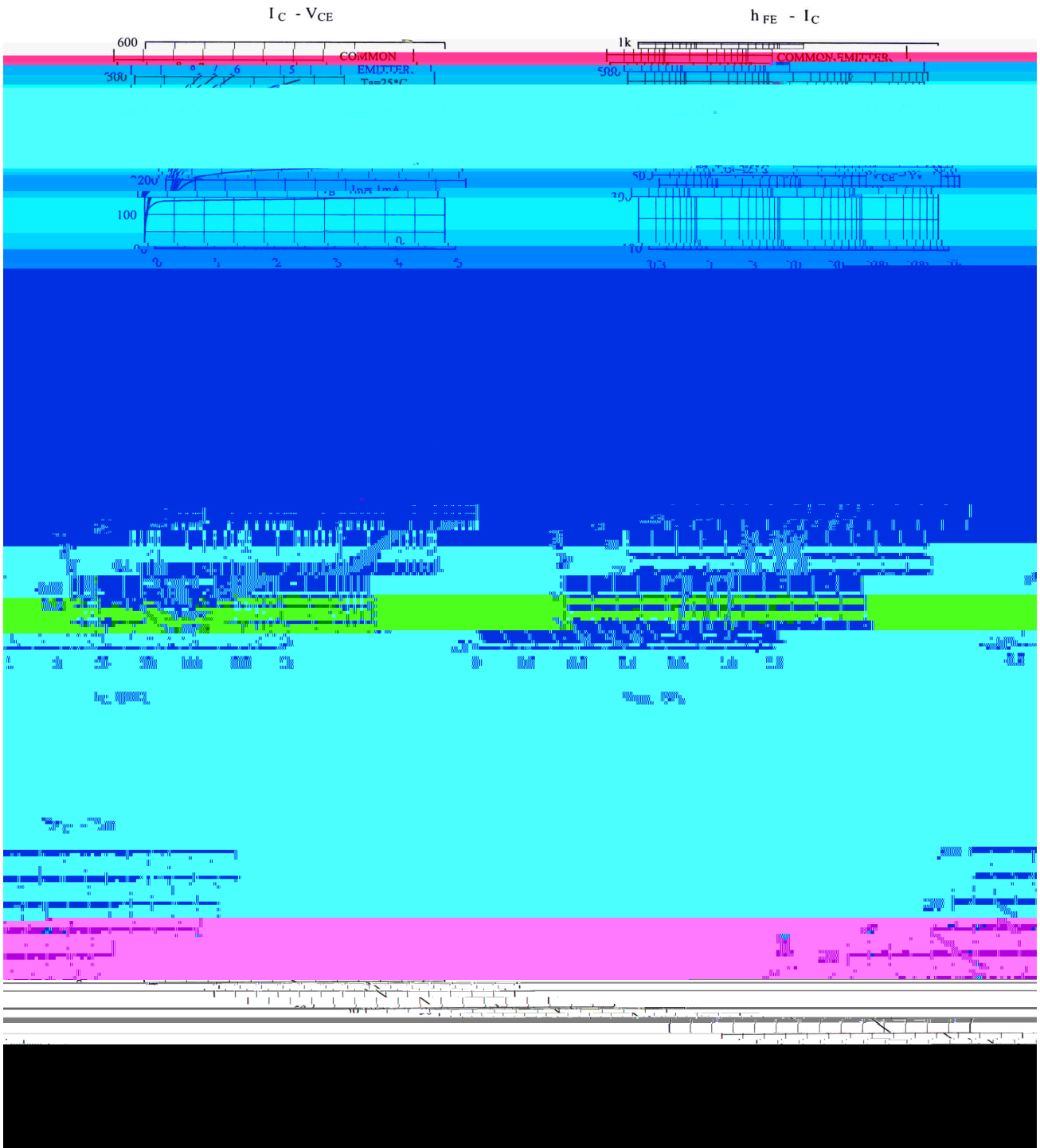
**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ 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	

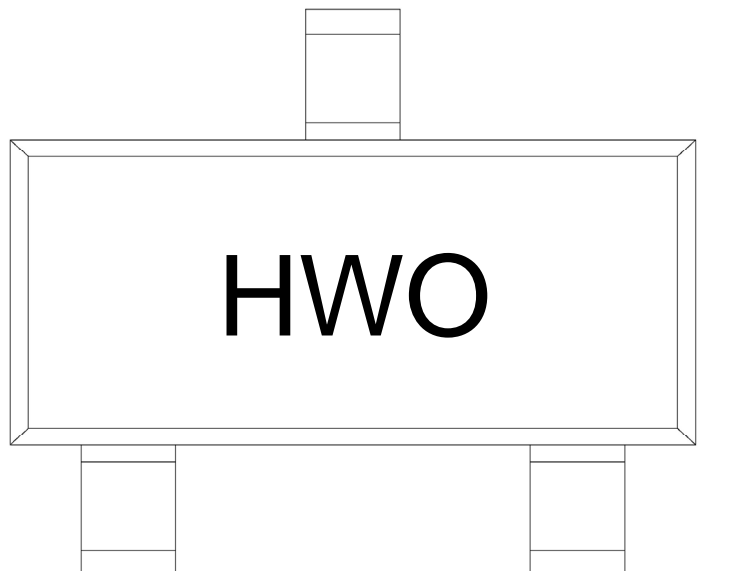
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=35V$ $I_E=0$			0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	70		400	
	$h_{FE(2)}$	$V_{CE}=6.0V$ $I_C=400mA$	25			
Collector 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

/ Electrical Characteristic Curve





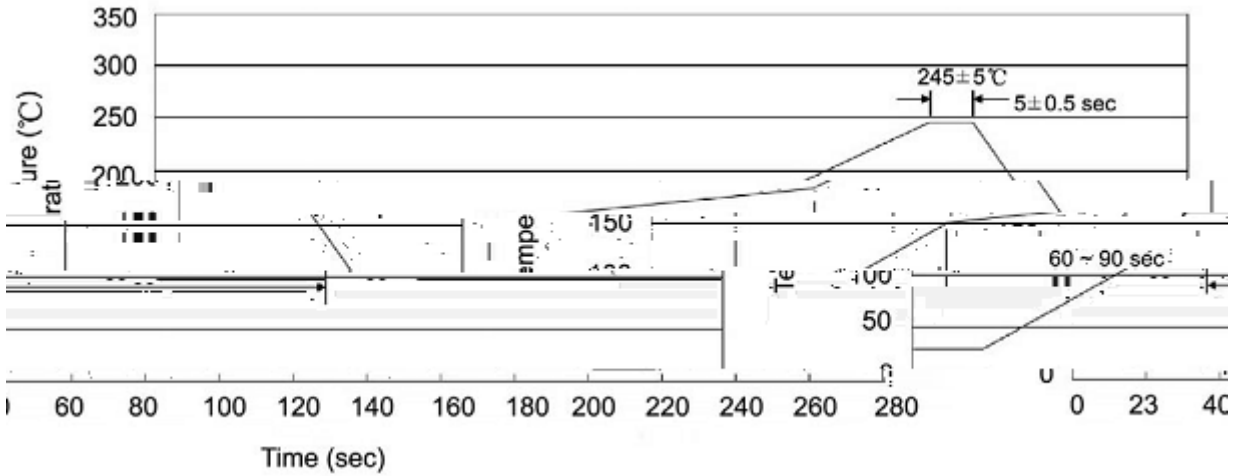
/ Marking Instructions



Note:

Company Code  
W Product Type  
h<sub>FE</sub> 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.            |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		

/ Notices