/ Descriptions

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

/ Features

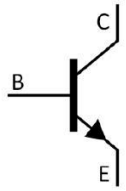
, , 2SA1036K

Large I_C,low $V_{CE(sat)}$,complementary pair with the 2SA1036K.

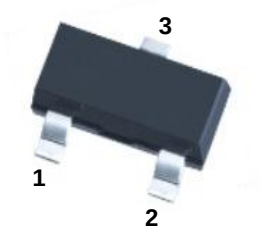
/ Applications

Medium power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	82 180	120 270	180 390
Marking	HCP	HCQ	HCR

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	32	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- Base Breakdown Voltage	V_{CBO}	I_C =100 A	40			V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA	32			V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=100 A	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=20V			1.0	A
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=4.0V			1.0	A
DC Current Gain	h_{FE}	V_{CE}=3.0V I_c=10mA	82		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA I_B=1.0mA			0.4	V

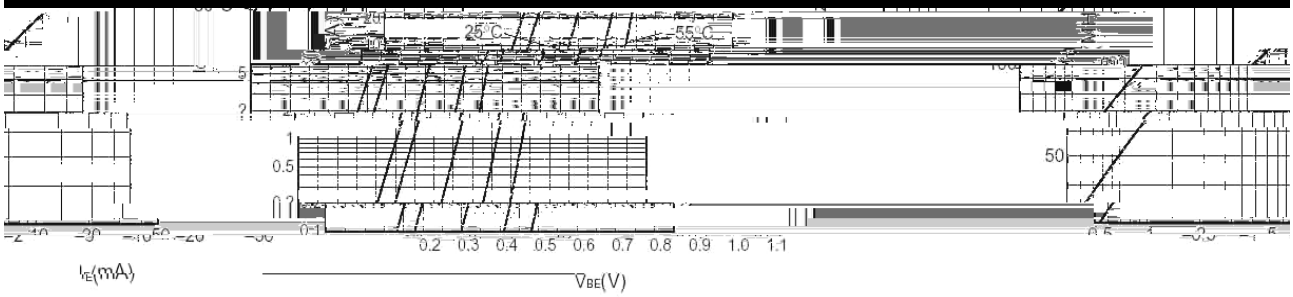
Tf57.0 10.5 268.02 358.2803 Tm0 Tc(V)Tj7.02 0 0 7.02 275.04 356.7803.0031 Tw[(T)31m-0.06(f1 Tw[TH.5 57.66 29

/ Electrical Characteristic Curve

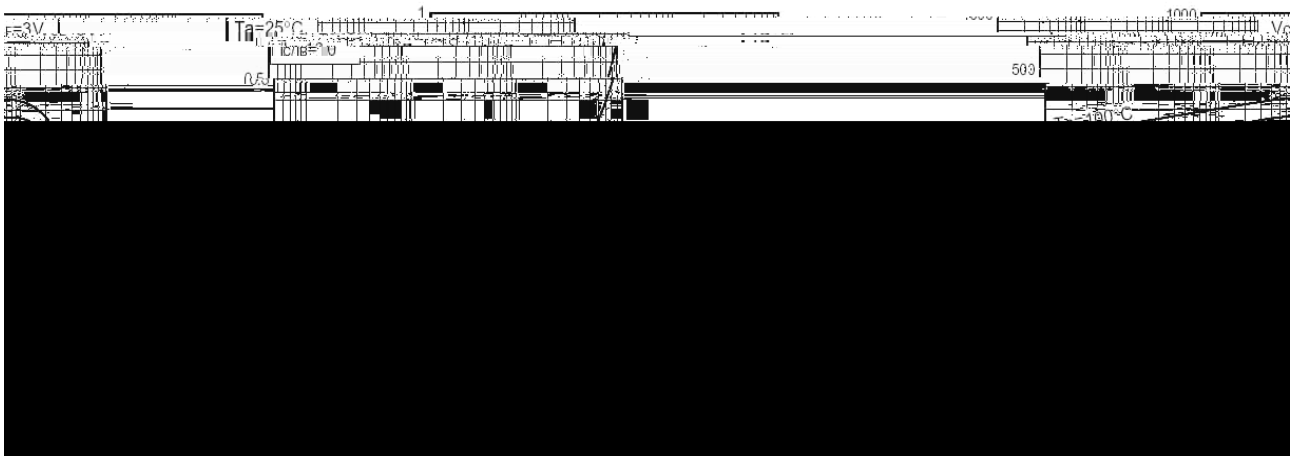
Ic – VCE



Ic – VCE

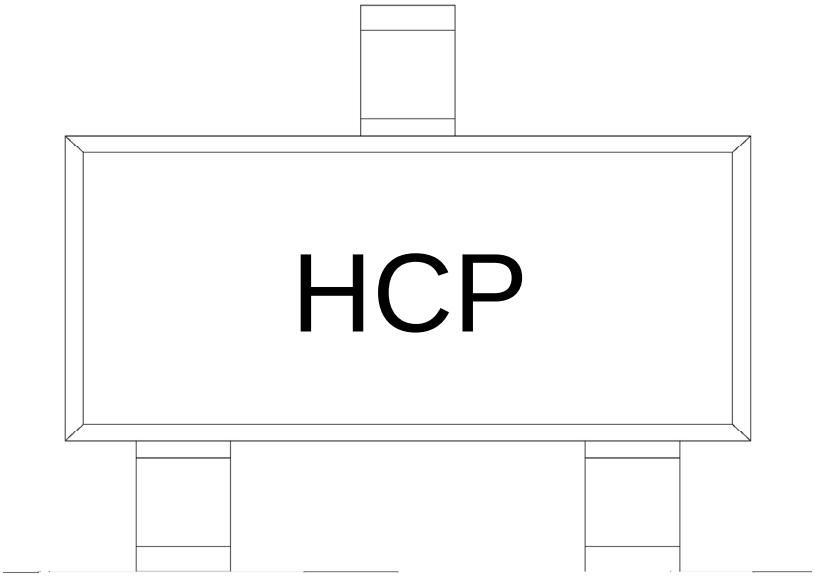


hFE – Ic



VCE(sat) – Ic

/ Marking Instructions



H

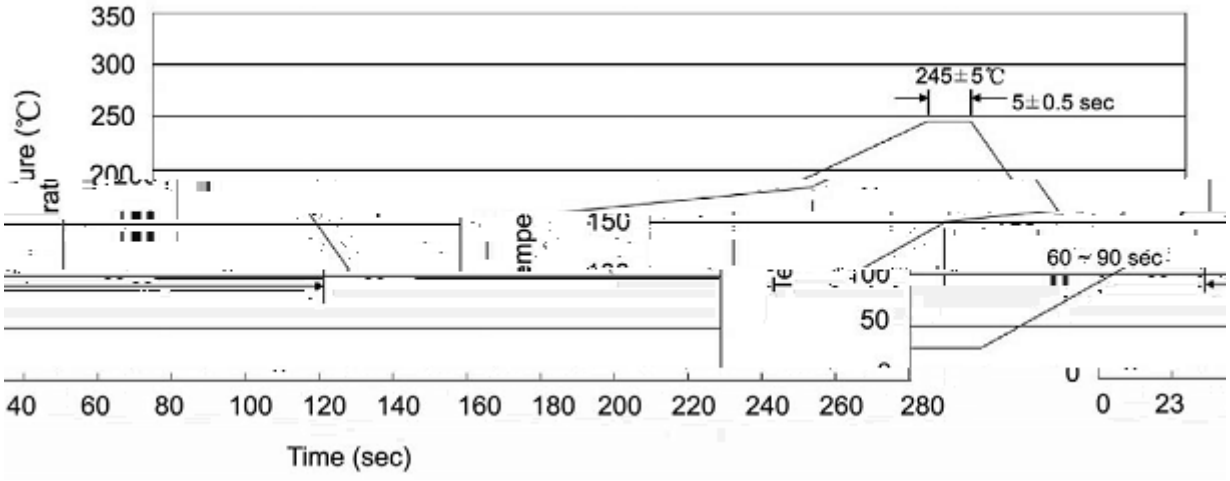
C

P h_{FE}

Note:

H	Company Code
C	Product Type Code
P	h_{FE} Classifications Symbol 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	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

/ Notices