/ Descriptions

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

/ Features

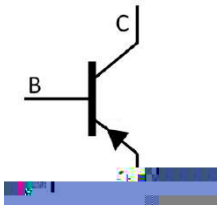
h_{FE}, 2SD596

High h_{FE}, complementary pair with 2SD596.

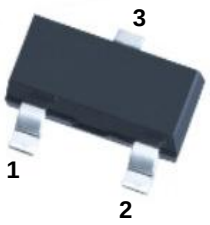
/ Applications

Audio frequency amplifier application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	1	2	3	4	5
h_{FE} Range	110 180	135 220	170 270	200 320	250 400
Marking	HBV1	HBV2	HBV3	HBV4	HBV5

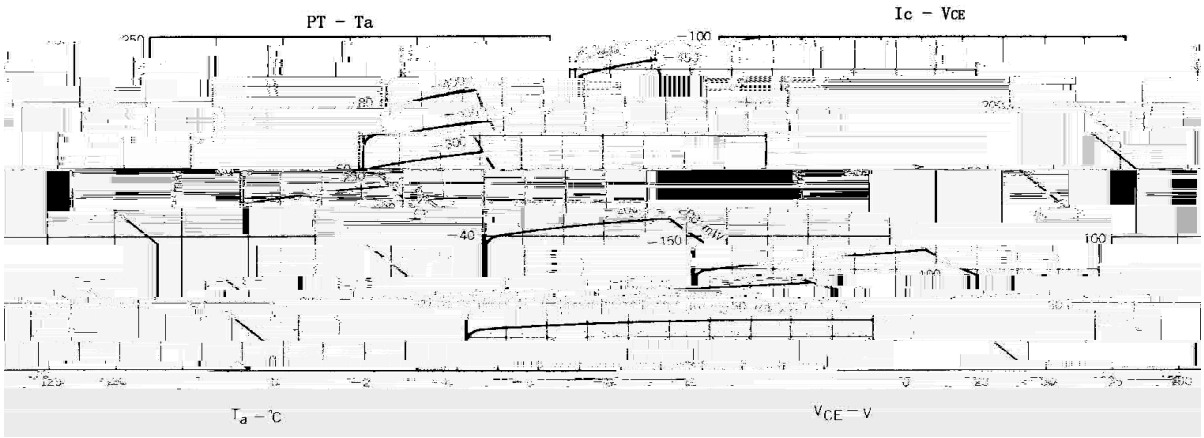
/ Absolute Maximum Ratings(Ta=25)

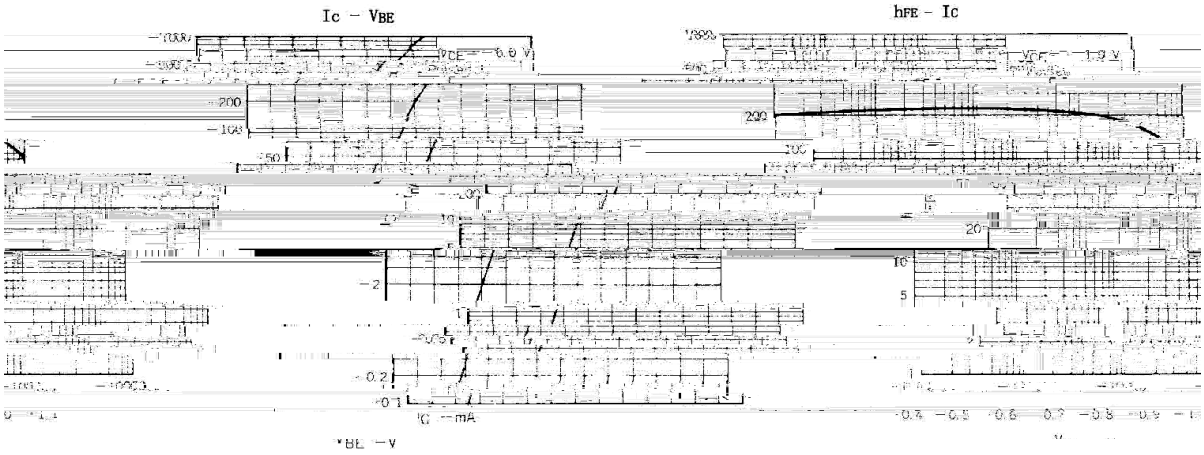
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-25	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-700	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

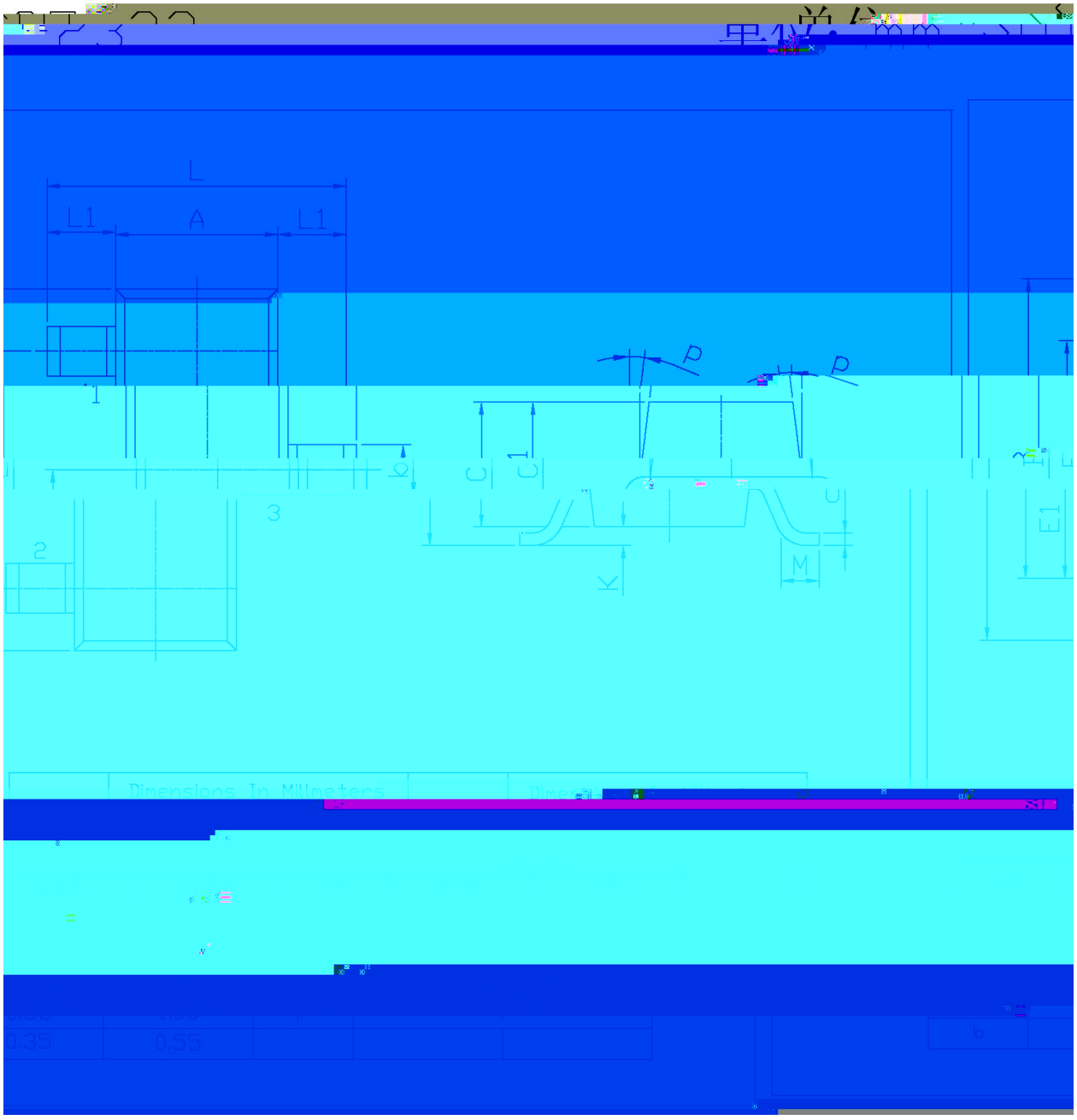
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-1.0V I_C=-100mA	110	200	400	
	$h_{FE(2)}$	V_{CE}=-1.0V I_C=-700mA	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-700mA I_B=-70mA		-0.25	-0.6	V
Collector to Base Voltage	V_{BE}	V_{CE}=-6.0V I_C=-10mA	-0.6	-0.64	-0.7	V
Transition Frequency	f_T	V_{CE}=-6.0V I_E=10mA		160		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-6.0V I_E=0 f=10MHz		17		pF

/ Electrical Characteristic Curve

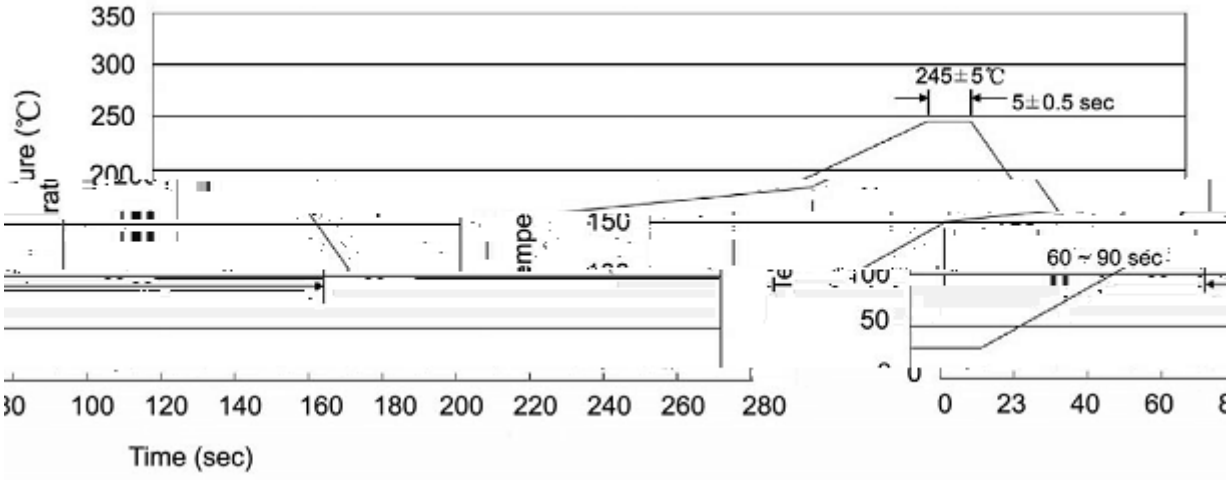




/ Package Dimensions



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



Note:

1 25 150 60