2SA1980

Rev.E Mar.-2016

蓝箭电子 BLUE ROCKET ELECTRONICS

DATA SHEET

/ Descriptions

TO-92 PNP Silicon PNP transistor in a TO-92 Plastic Package.

/ Features

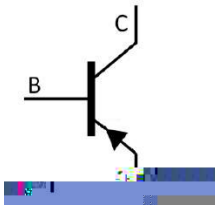
2SC5343

Low $V_{CE(sat)}$,low output capacitance, complementary pair with 2SC5343.

/ Applications

General small signal amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

h_{FE} Classifications Symbol	O	Y	G	L
h_{FE} Range	70~140	120~240	200~400	300~700

/ Absolute Maximum Ratings(Ta=25)

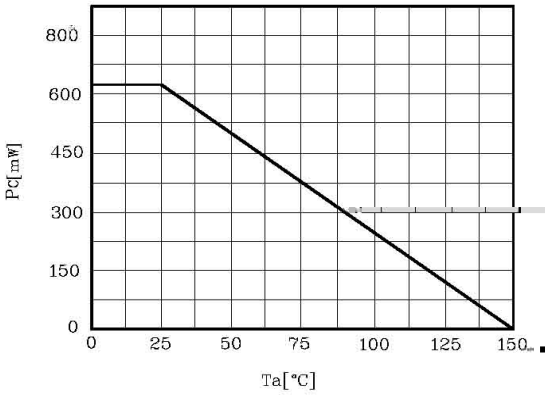
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-150	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Elect4ocal Characteristics(Ta=25)

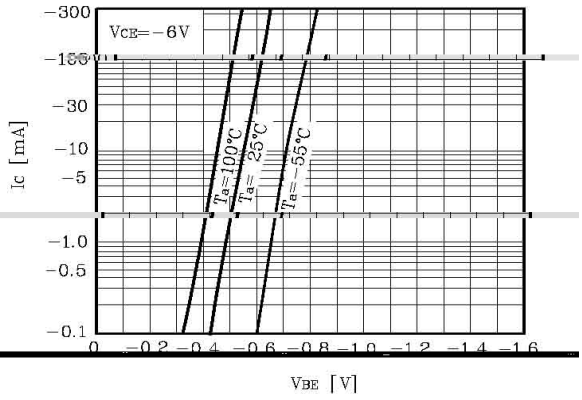
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-100μA I_E=0	-50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-1.0mA I_B=0	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-10μA I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-50V 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}	V_{CE}=-6.0V I_C=-2.0mA	70		700	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-100mA I_B=-10mA			-0.3	V
Transition Frequency	f_T	V_{CE}=-10V I_C=-1.0mA	80			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz		4.0	7.0	pF
Noise Figure	NF	V_{CE}=-6.0V I_C=-0.1mA f=1.0KHz Rg=10KΩ			10	dB

/ Electrical Characteristic Curve

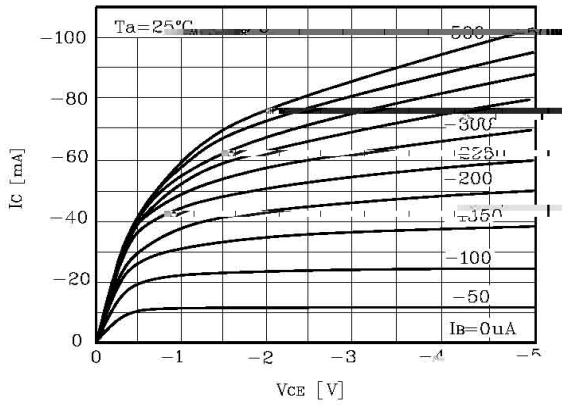
P_C-T_a



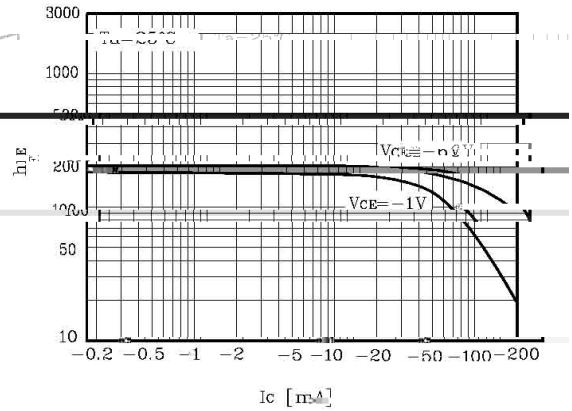
I_C-V_{BE}



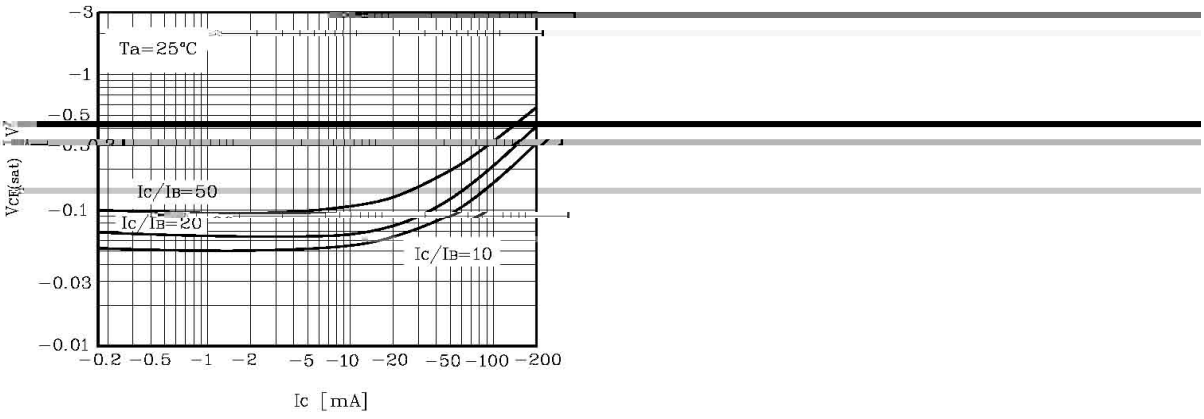
I_C-V_{CE}



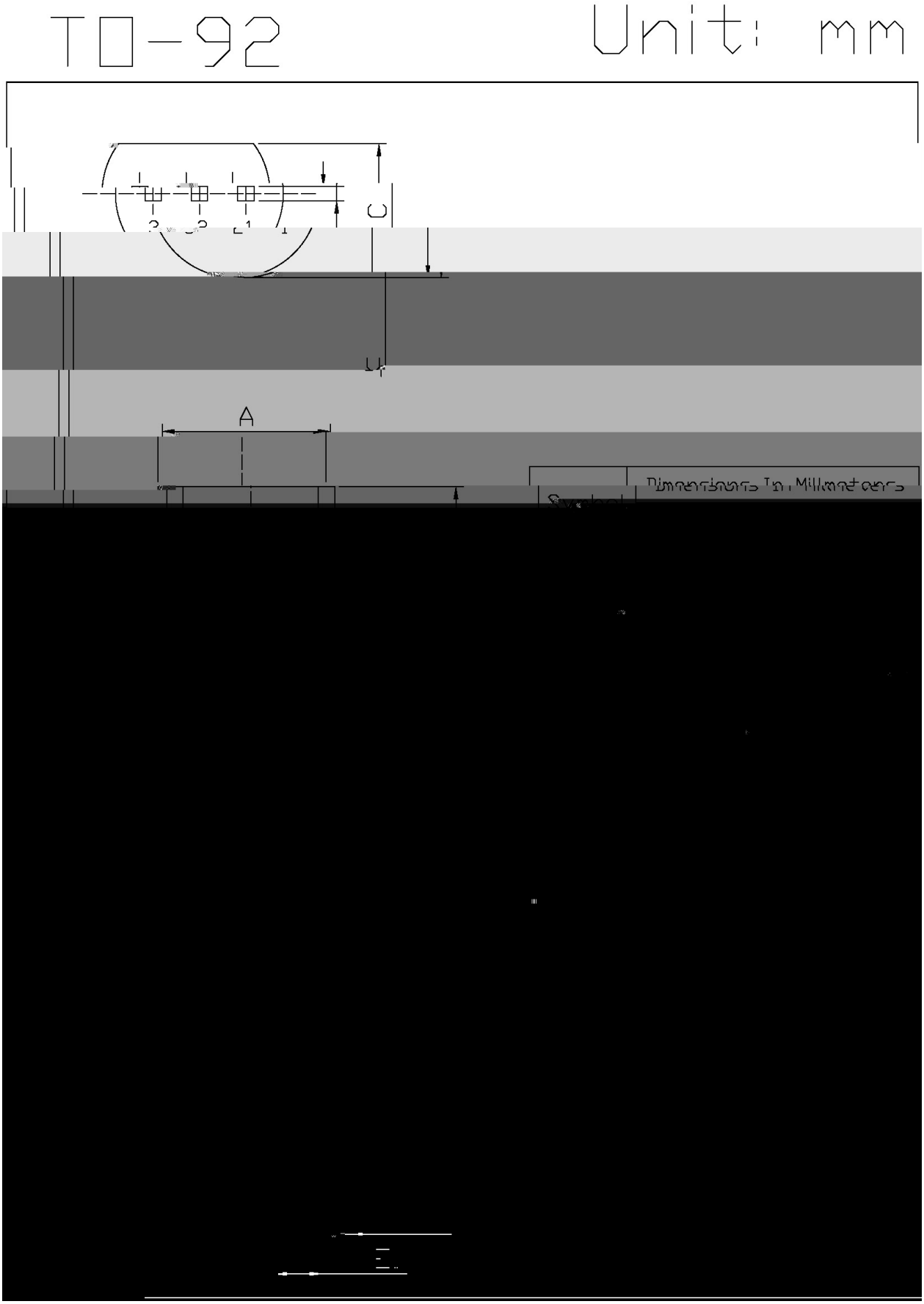
h_{FE}-I_C



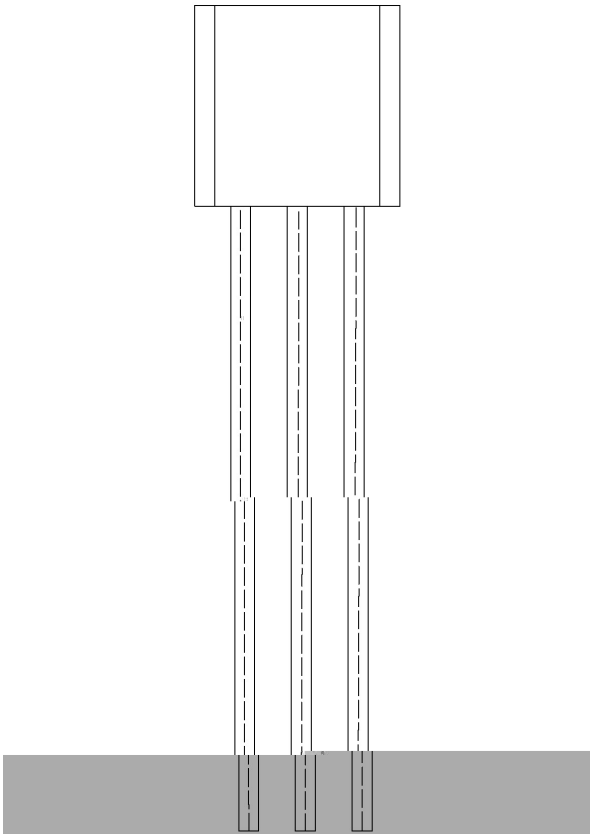
$V_{CE(sat)}$-I_C



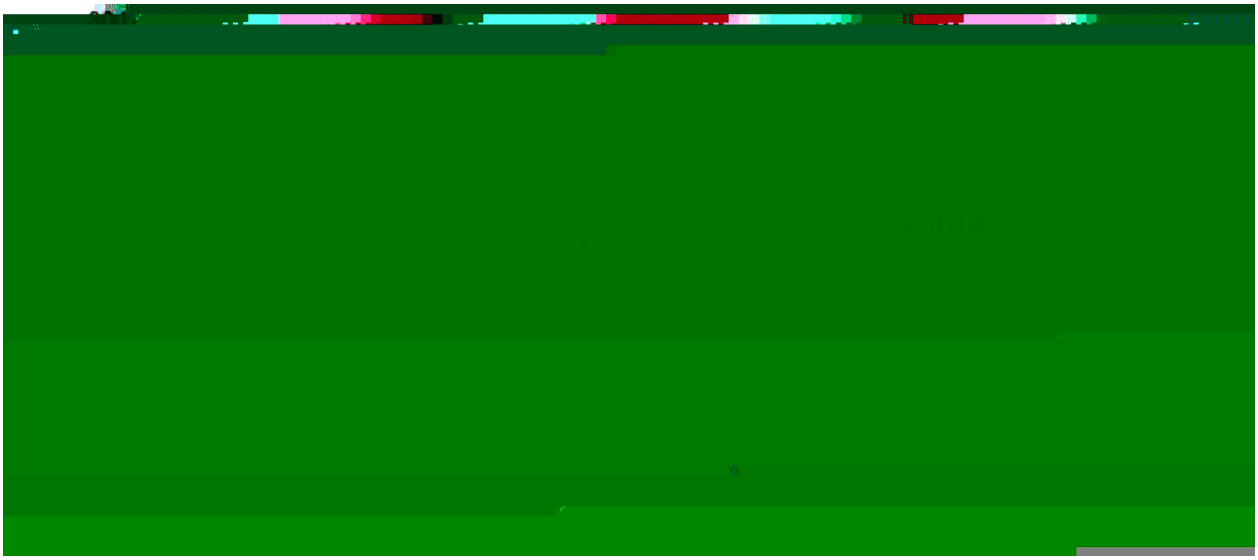
/ Package Dimensions



/ Marking Instructions



( ) / Temperature Profile for Dip Soldering(Pb-Free)



				Note:	
1	25 150	60 90sec;		1.Preheating:25~150 , Time:60~90sec.	
2	255±5	5±0.5sec;		2.Peak Temp.:255±5 , Duration:5±0.5sec.	
3	2 10 /sec.			3. Cooling Speed: 2~10 /sec.	

/ Resistance to Soldering Heat Test Conditions

270±5	10±1 sec.	Temp:270±5	Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/tape 只/纸带	Tape/Inner Box 纸带/盒	Rows/Inner Box 纸带层/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Inner Box 盒	Outer Box 箱
TO-92	3,000	1	120	10	30,000	328×230×42	小箱 480×346×235， 大箱 547×407×268

/ Notices