/ Descriptions

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

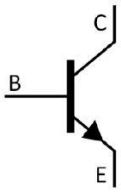
/ Features

High current gain.

/ Applications

Applications requiring extremely high current gain device designed.

/ Equivalent Circuit



/ Pinning



PIN1 Collector PIN 2 Base PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions.

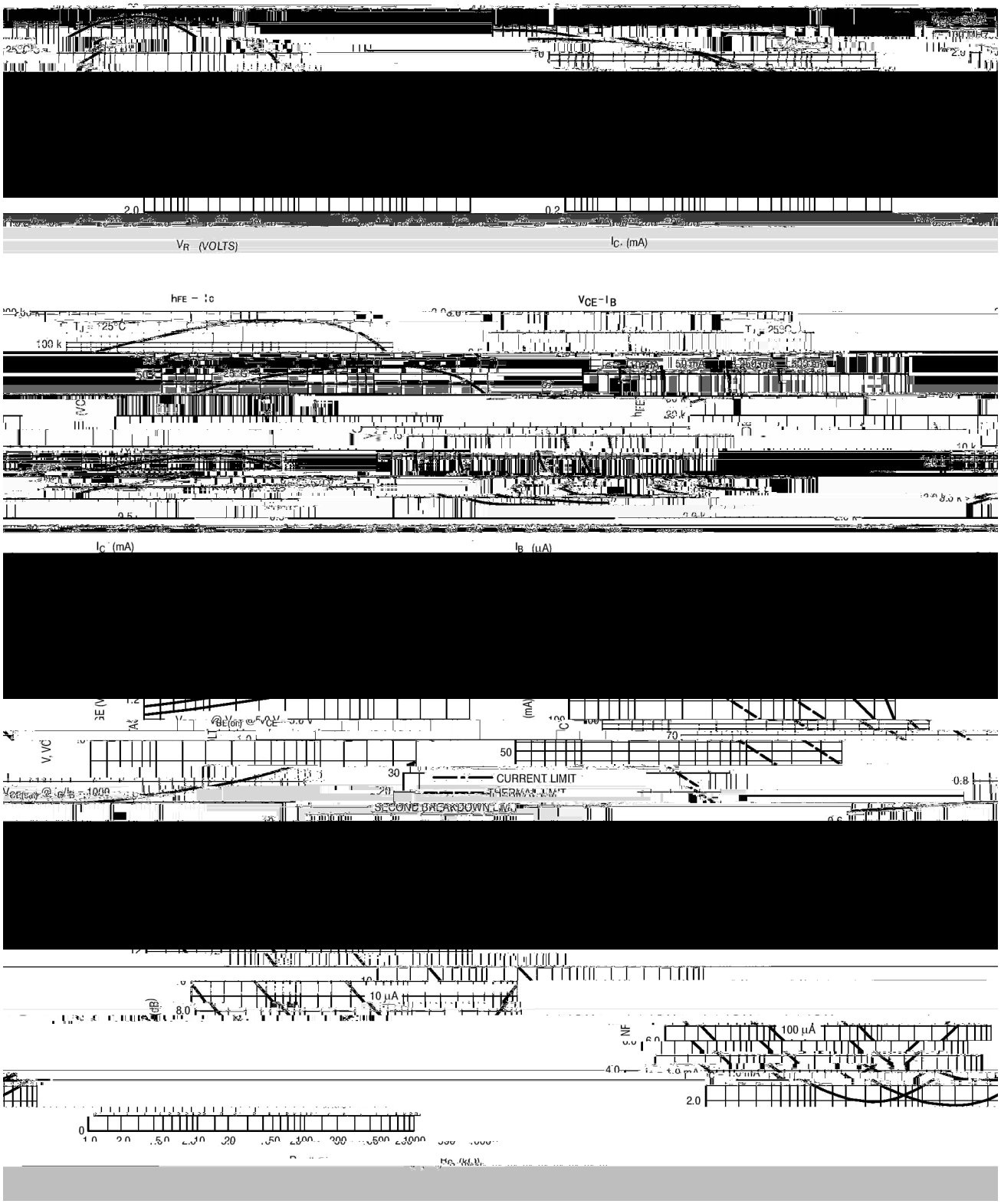
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	10	V
Collector Current - Continuous	I_C	500	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

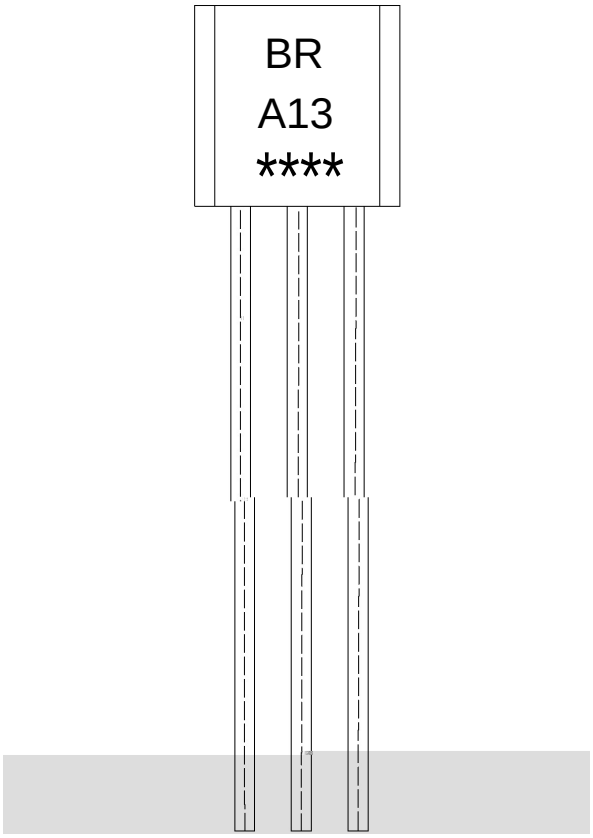
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=100 A I_B=0	30			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.1	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=10V I_C=0			0.1	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=5.0V I_C=10mA	5000			
	$h_{FE(2)}$	V_{CE}=5.0V I_C=100mA	10000			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA I_B=0.1mA			1.5	V
Base to Emitter Voltage	V_{BE}	V_{CE}=5.0V I_C=100mA			2.0	V
Transition Frequency	f_T	V_{CE}=10V I_C=10mA f=100MHz	125			MHz

/ Electrical Characteristic Curve



/ Marking Instructions



BR:

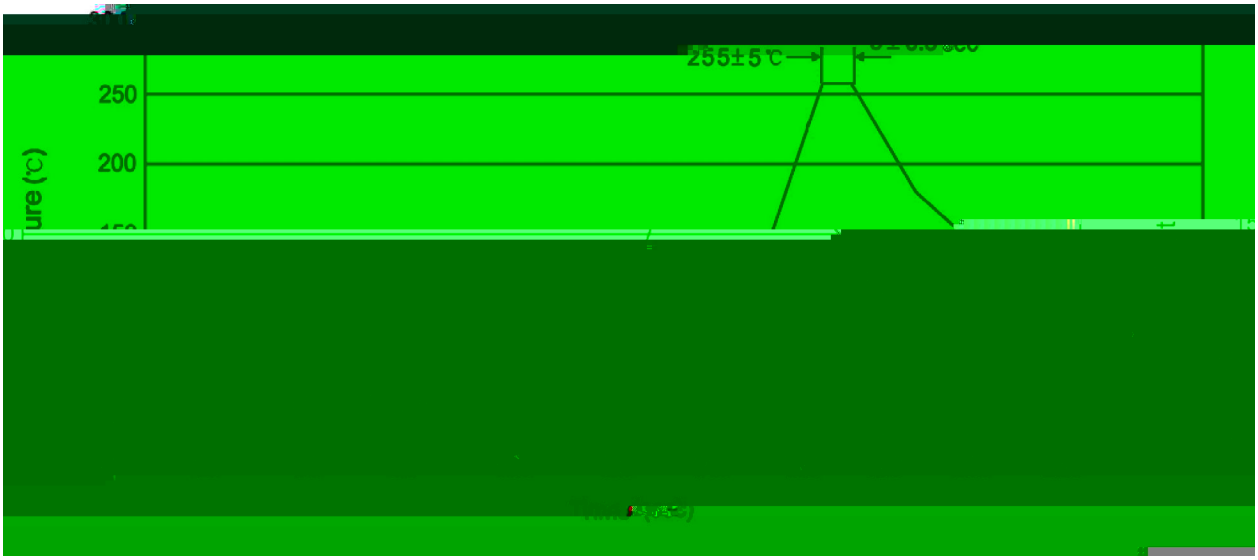
A13

****

Note:

BR:	Company Code.
A13:	Product Type.
****:	Lot No. Code,code change with Lot No.

( ) / 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/ 带	Tape/Inner Box 带/盒	Rows/Inner Box 带	