/ Descriptions

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

/ Features

2SC2021

Complementary pair with 2SC2021.

/ Applications

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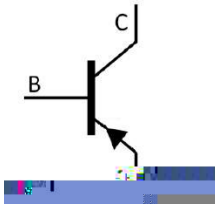
General small-signal amplifier, preamplifiers, equalizer amplifiers, RF amplifiers and oscillators, medium-speed switching.

/ Equivalent Circuit



/ Pinning

PIN1 Base PIN 2 Collector PIN 3 Emitter

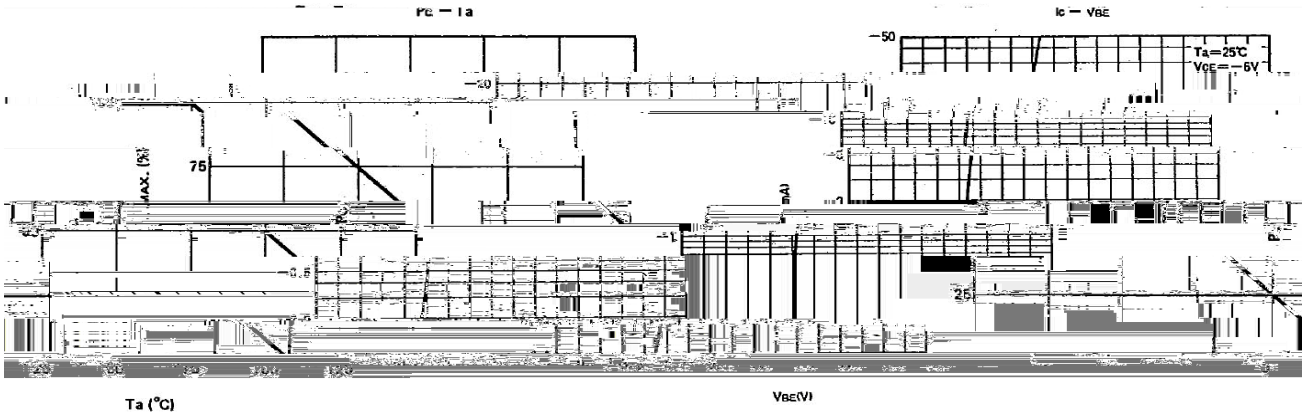
/ hFE Classifications & Marking

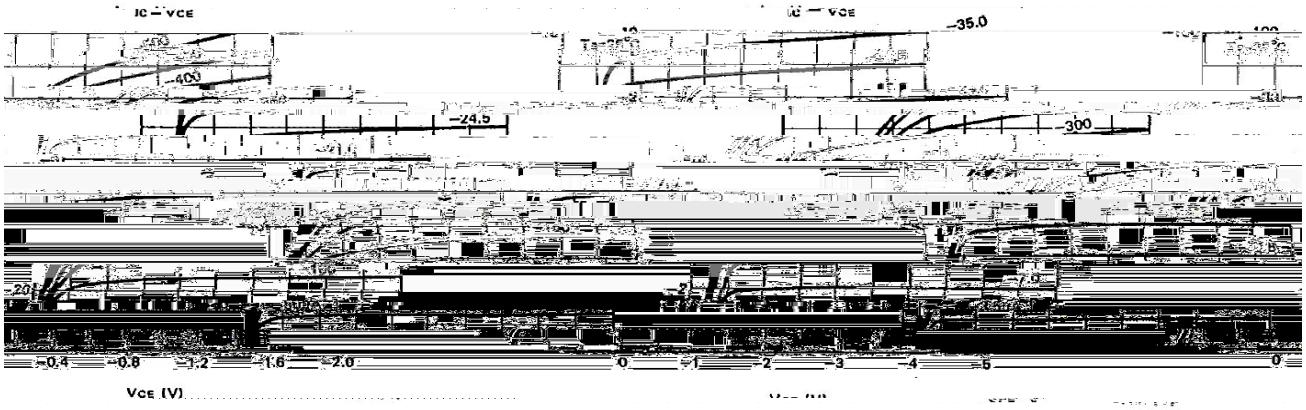
h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	120~270	180~390	270~560

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-40	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-50μA I_E=0	-50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-1.0mA I_B=0	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-50μA I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-0.5	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4.0V I_C=0			-0.5	μA
DC Current Gain	h_{FE}	V_{CE}=-6.0V I_C=-1.0mA	120		560	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-50mA I_B=-5.0mA		-0.1	-0.5	V
Transition Frequency	f_T	V_{CE}=-12V I_C=-2.0mA		140		MHz
Output Capacitance	C_{ob}	V_{CB}=-12V I_E=0 f=1.0MHz		4.0	5.0	pF

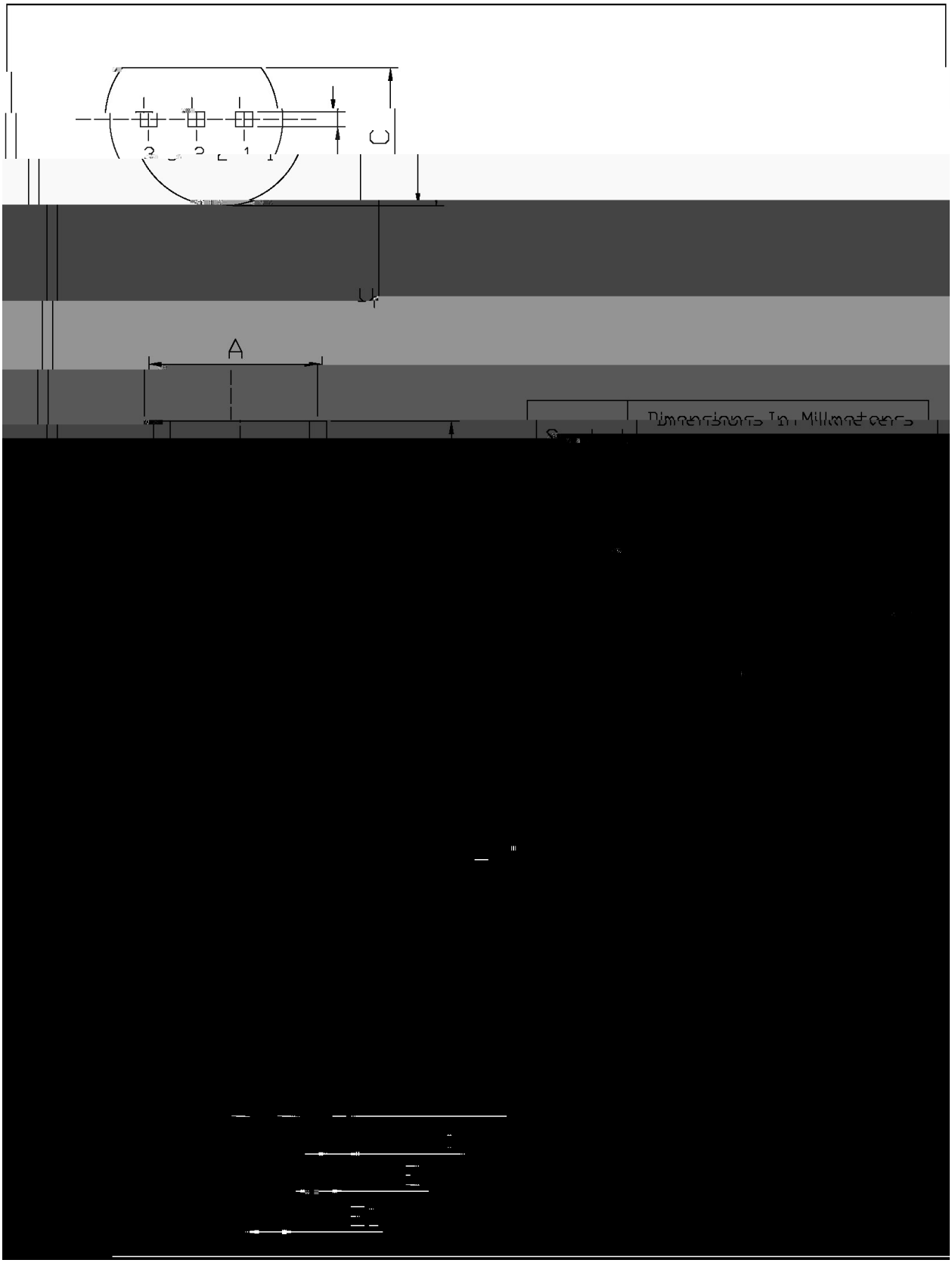
/ Electrical Characteristic Curve



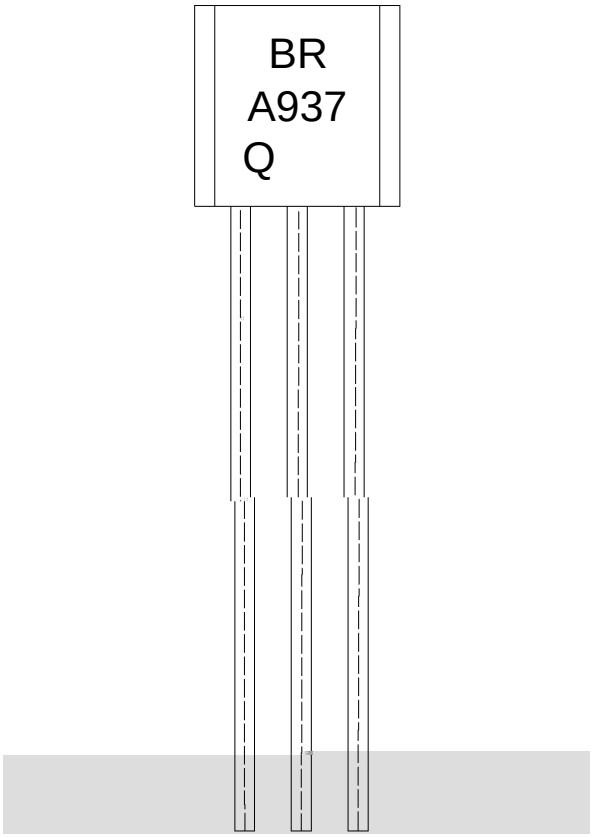


/ Package Dimensions

TO-92 Unit: mm



/ Marking Instructions



BR:

A937

Q: h_{FE}

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Note:

BR:	Company Code.
A937:	Product Type.
Q:	h_{FE} Classifications Symbol.
****:	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	Units					Dimension		(unit mm3)

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