/ Descriptions

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

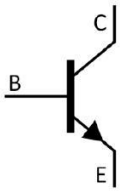
/ Features

P_C

High P_C.

AM FM

AM converter, FM low noise figure high frequency amplifier.





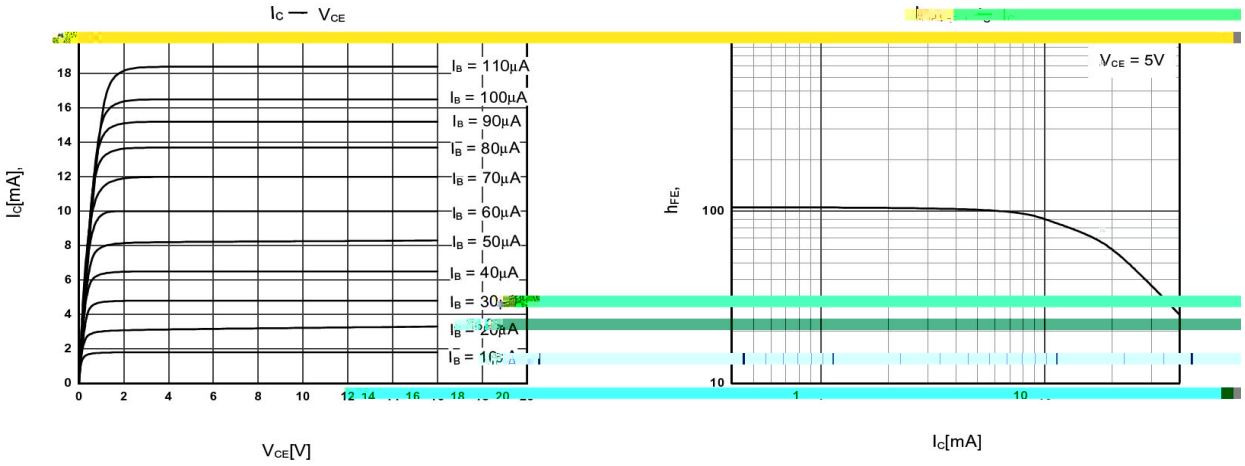
PIN1 Collector PIN 2 Base PIN 3 Emitter

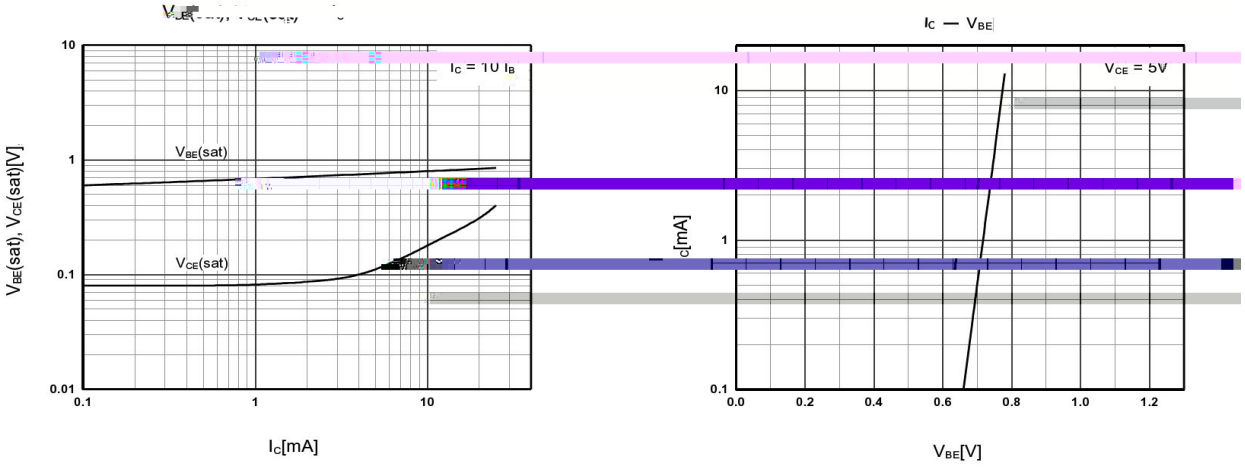
/ h_{FE} Classifications & Marking

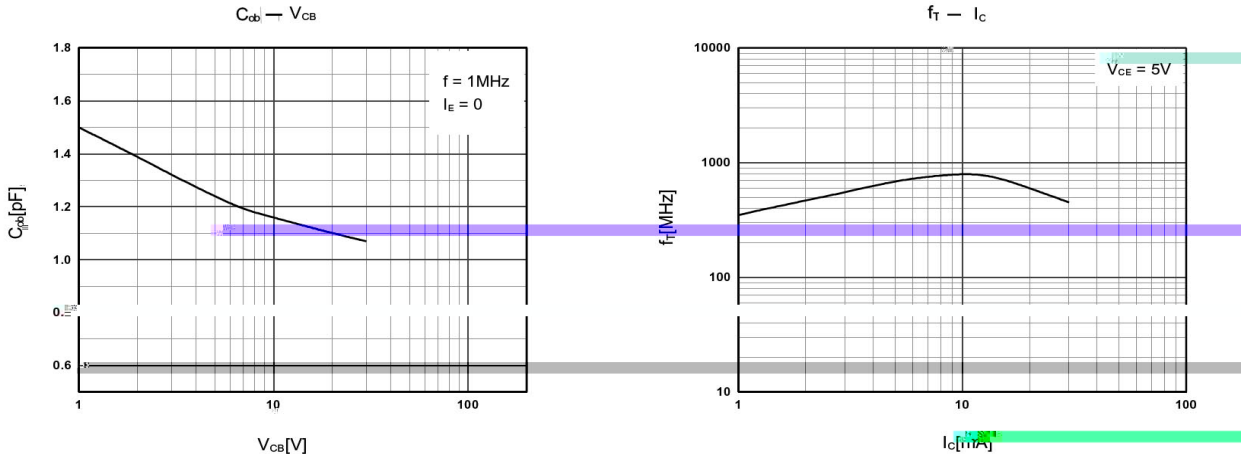
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current - Continuous	I_C	25	mA
Base Current - Continuous	I_B	5.0	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=0.1mA I_E=0	30			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	20			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=5.0V I_C=1.0mA	28		198	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA I_B=1.0mA		0.1	0.3	V
Base to Emitter Voltage	V_{BE}	V_{CE}=5.0V I_C=1.0mA		0.72		V
Transition Frequency	f_T	V_{CE}=5.0V I_C=1.0mA	400	620		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz		1.2	1.6	pF
Noise Figure	NF	V_{CE}=5.0V R_g=50Ω I_C=1.0mA f=100MHz		3.0	5.0	dB

/ Electrical Characteristic Curve

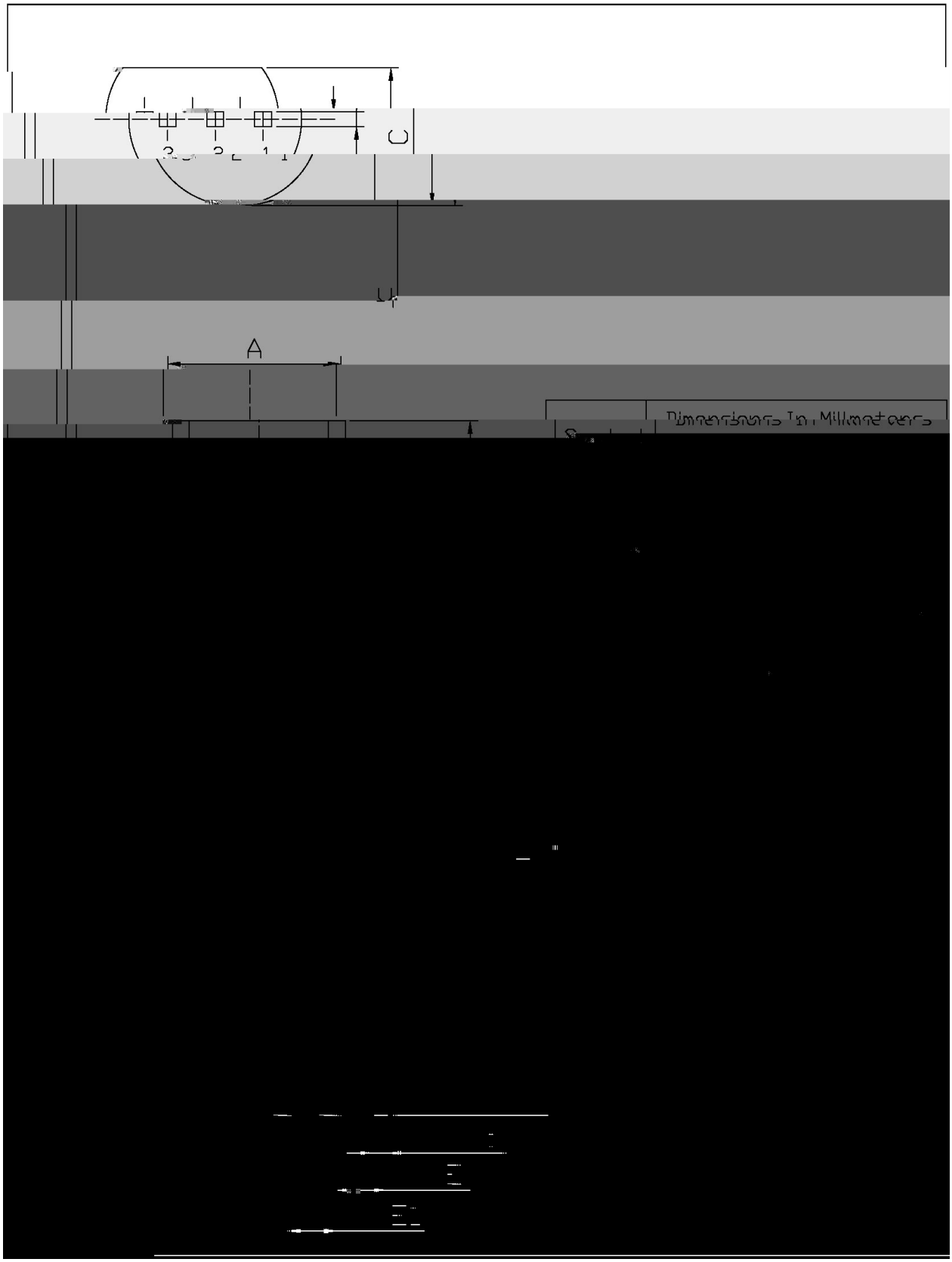




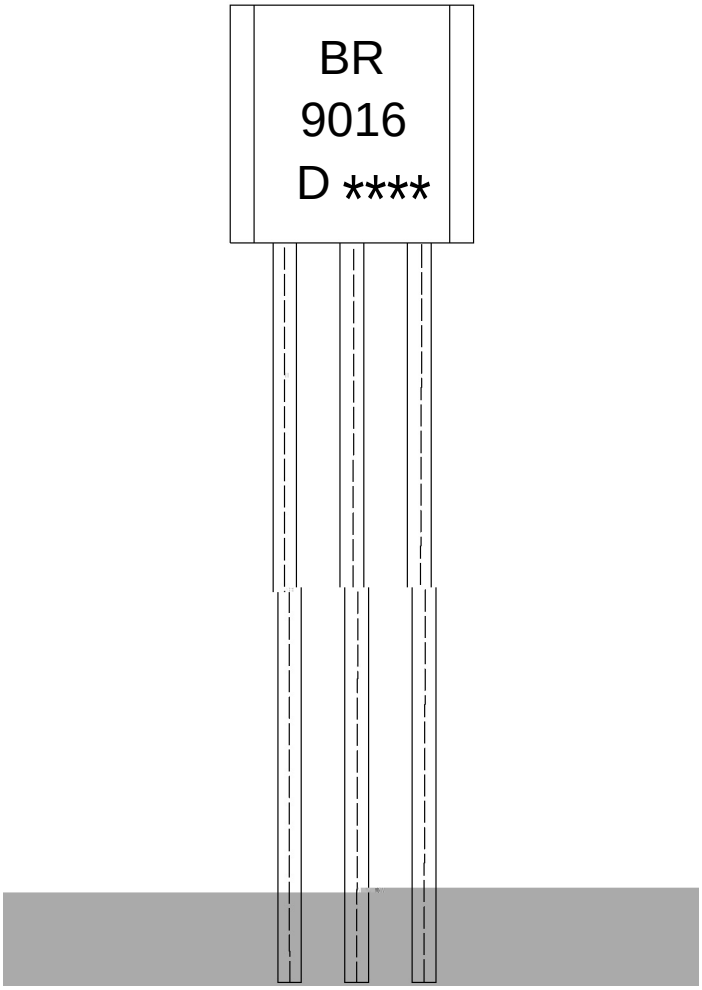


/ Package Dimensions

TO-92 Unit: mm



/ Marking Instructions



BR

9016

D: h_{FE}

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Note:

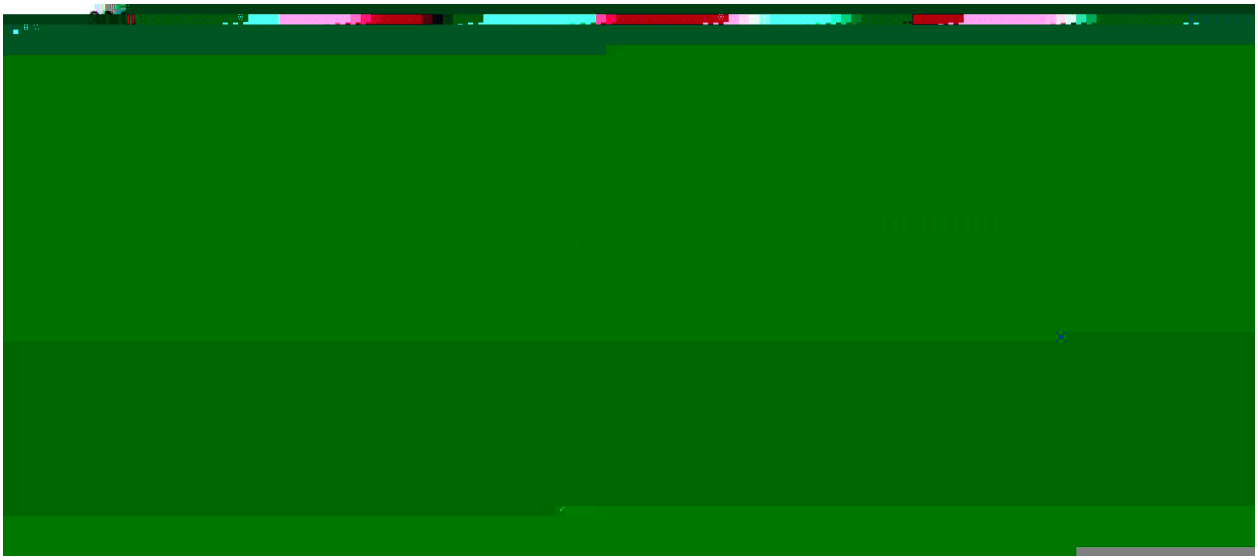
BR: Company Code.

9016: Product Type.

D: 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.

1 01 p0'H1 2 - Σ . θ 0 7 . 9 4 5 2 (' ج ″ ′Y 6