/ Descriptions

Silicon NPN transistor in a TO-92 Plastic Package.

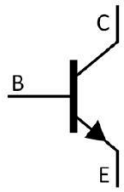
/ Features

High P_C and I_C, excellent h_{FE} linearity, complementary pair with3DG 9012.

/ Applications

Amplifier of portable radios in class B push-pull operation.

/ Equivalent Circuit



/ Pinning

PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	D	E	F	G	H	I
h_{FE} Range	64~91	78~112	96~135	112~166	144~202	188~276

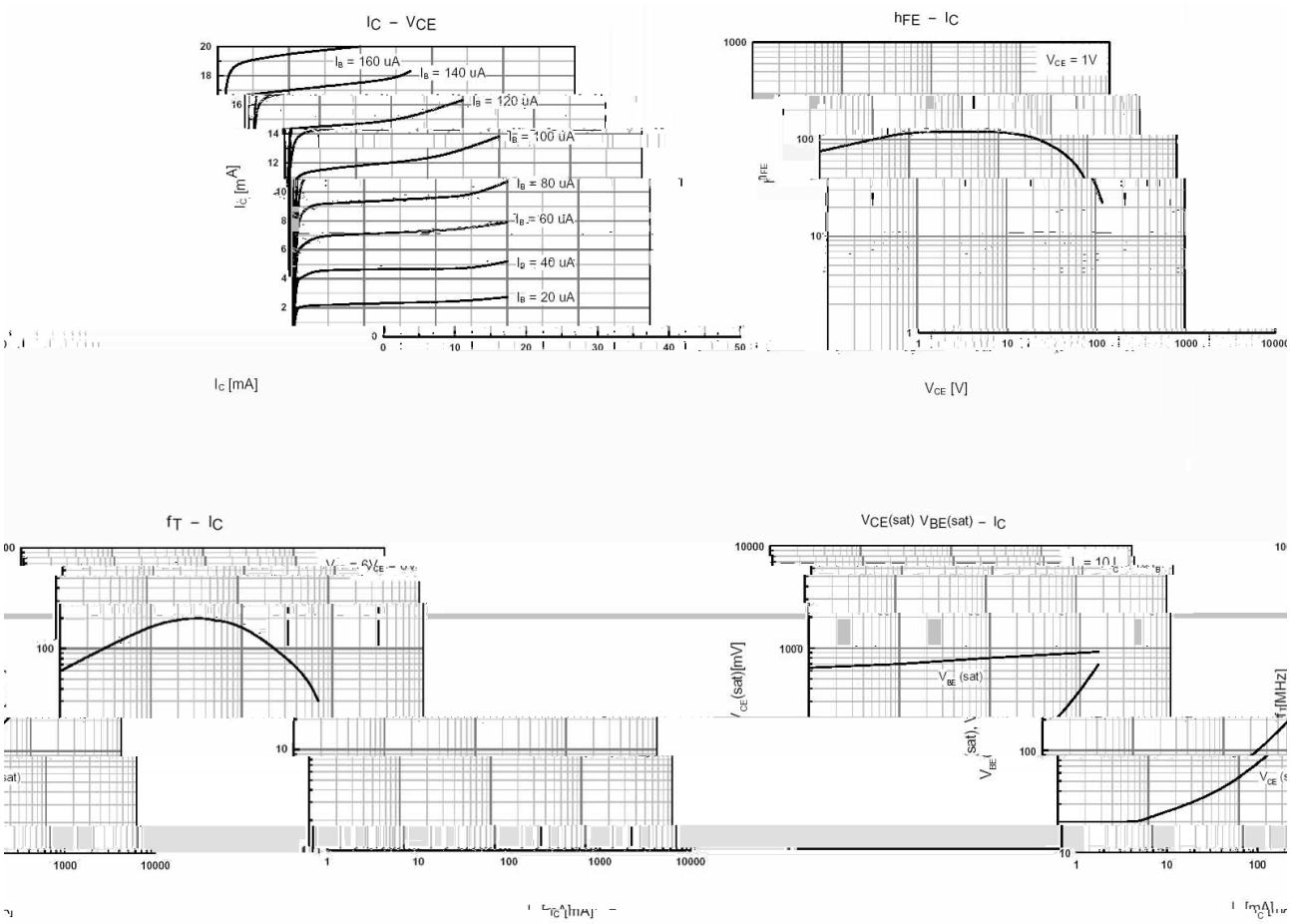
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	500	mA
Base Current - Continuous	I_B	100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

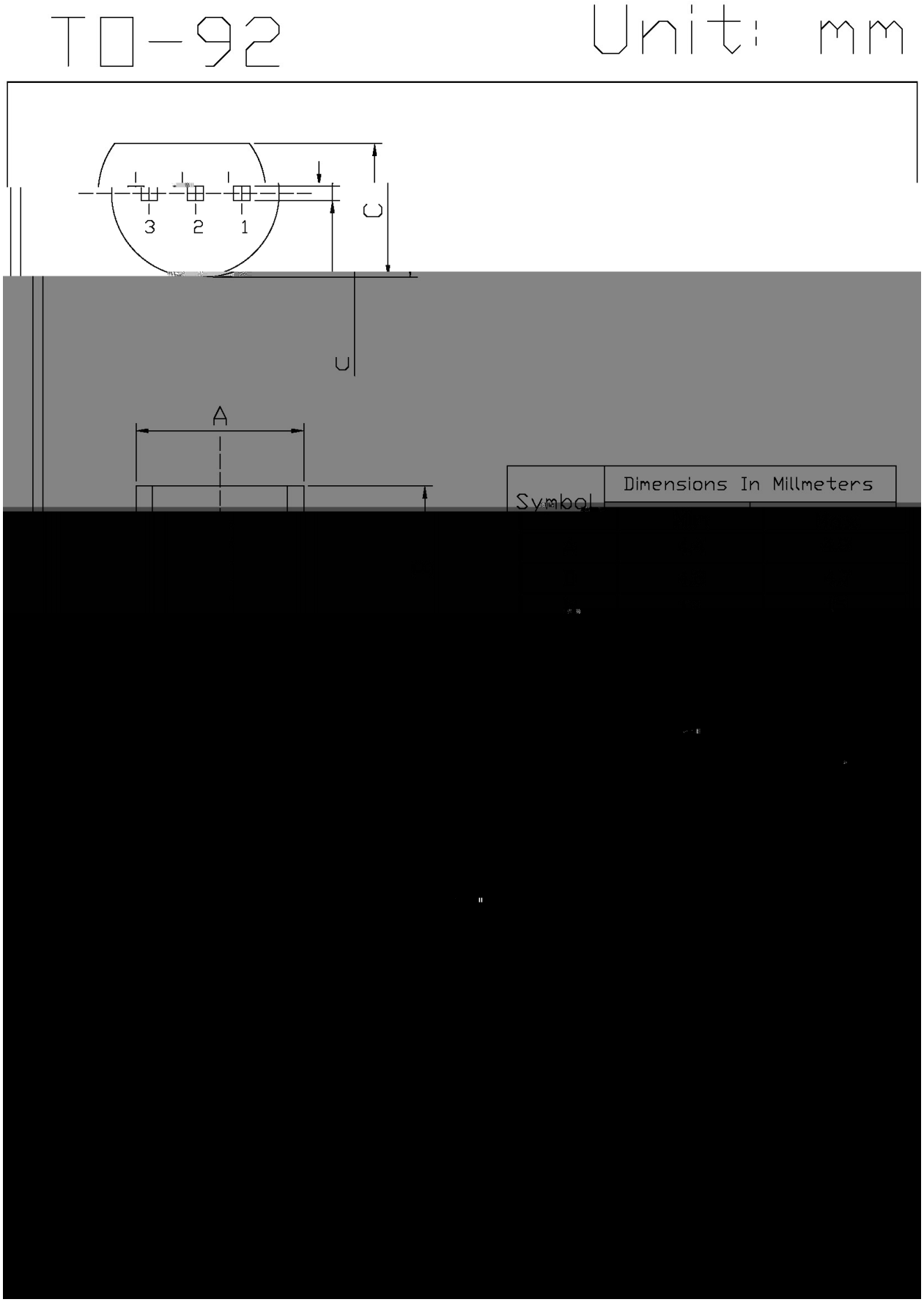
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=0.1mA I_E=0	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	20			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=0.1mA I_C=0	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=25V I_E=0			0.1	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			0.1	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V I_C=50mA	64		276	
	$h_{FE(2)}$	V_{CE}=1.0V I_C=500mA	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA I_B=50mA		0.16	0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=500mA I_B=50mA		0.91	1.2	V
Base to Emitter Voltage	V_{BE}	V_{CE}=1.0V I_C=10mA		0.67	0.7	V

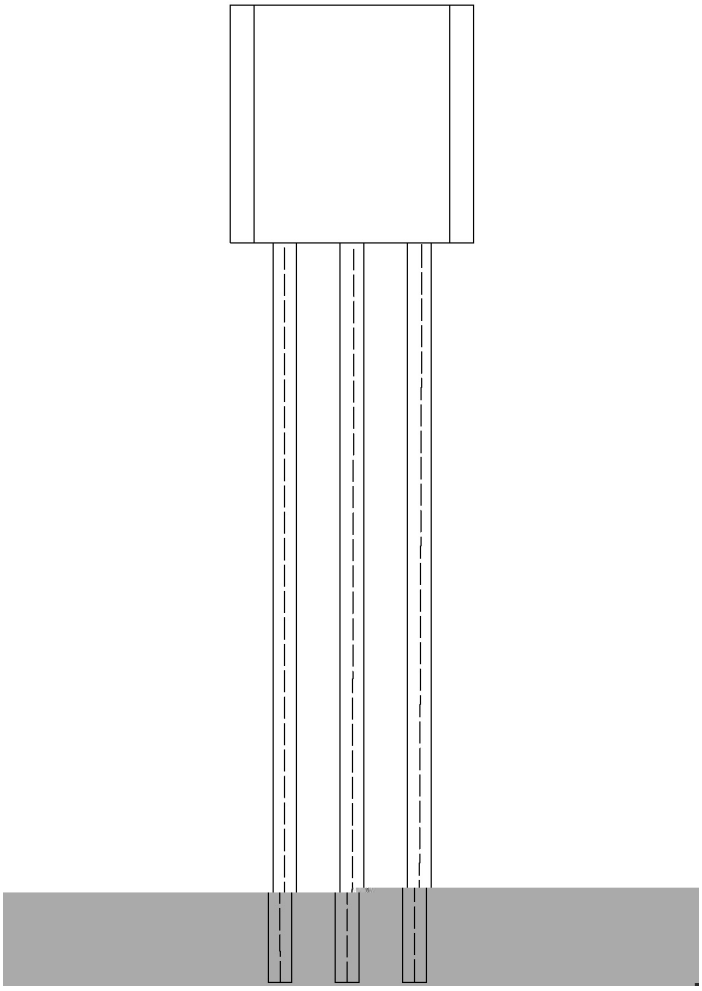
/ Electrical Characteristic Curve



/ Package Dimensions

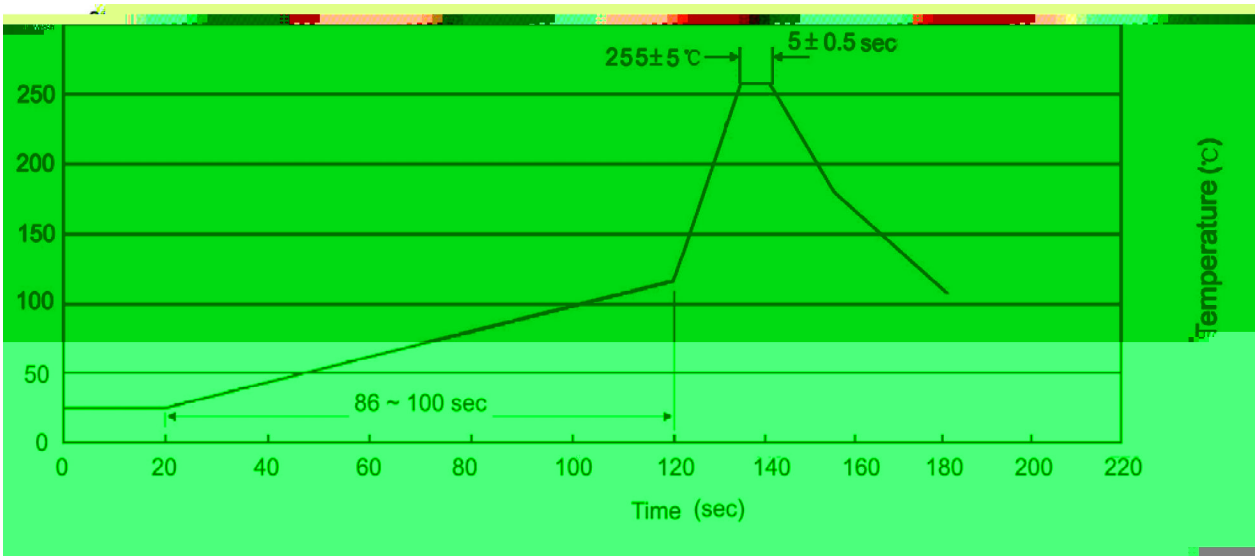


/ Marking Instructions



h_{FE}

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



					Note:
1	25	150	60	90sec;	1.Preheating:25~150