

/ Descriptions

Silicon NPN transistor in a TO-92 Plastic Package.

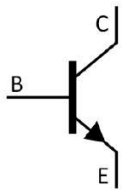
/ Features

High I_C , Complementary pair with BC640.

/ Applications

Driver stages of audio or video amplifiers applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

h_{FE} Classifications Symbol	10	16
h_{FE} Range	63~160	100~250

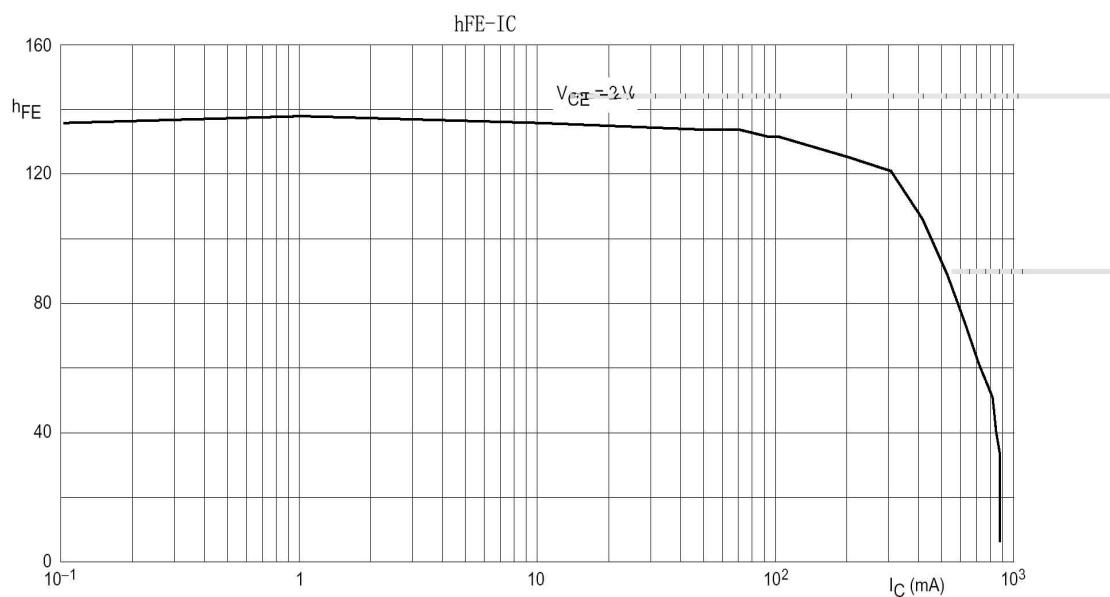
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V	100	V
Collector to Emitter Voltage	V _{CEO}	80	V
Emitter to Base Voltage	V _{EBO}	5.0	V
Collector Current - Continuous	I _C	1.0	A
Peak Collector Current	I _{CM}	1.5	A
Peak Base Current	I _{BM}	200	mA
Total Power Dissipation	P _{tot}	830	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I _{CBO}	V _{CB} =30V 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(1)}	V _{CE} =2.0V I _C =150mA	63		250	
	h _{FE(2)}	V _{CE} =2.0V I _C =5.0mA	63			
	h _{FE(3)}	V _{CE} =2.0V I _C =500mA	40			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA I _B =50mA			0.5	V
Base to Emitter Voltage	V _{BE}	I _C =500mA V _{CE} =2.0V			1.0	V
Transition Frequency	f _T	V _{CE} =5.0V I _C =50mA f=100MHZ	100			MHz

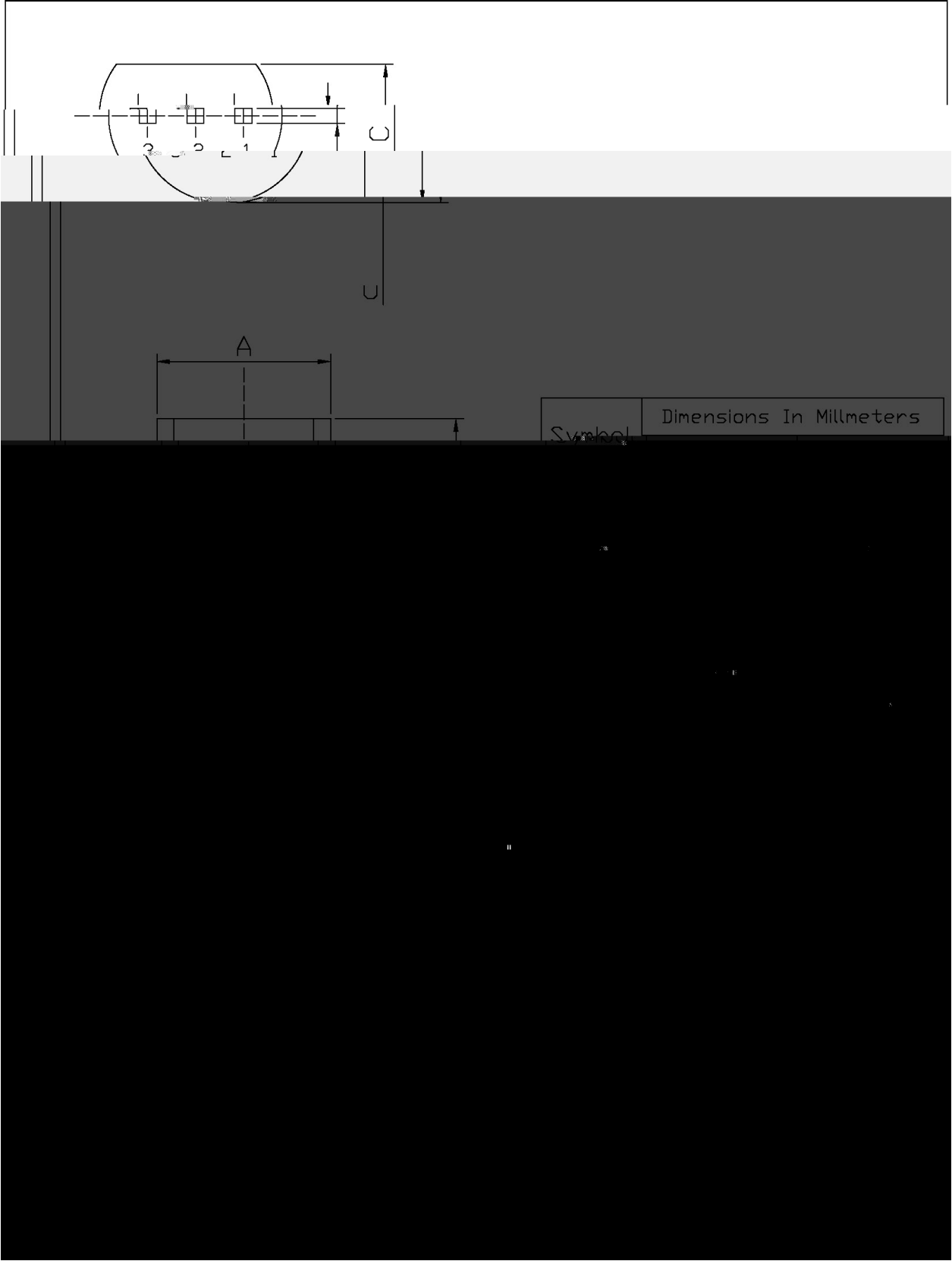
/ Electrical Characteristic Curve



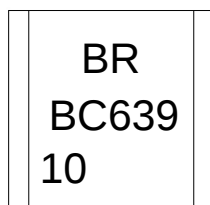
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



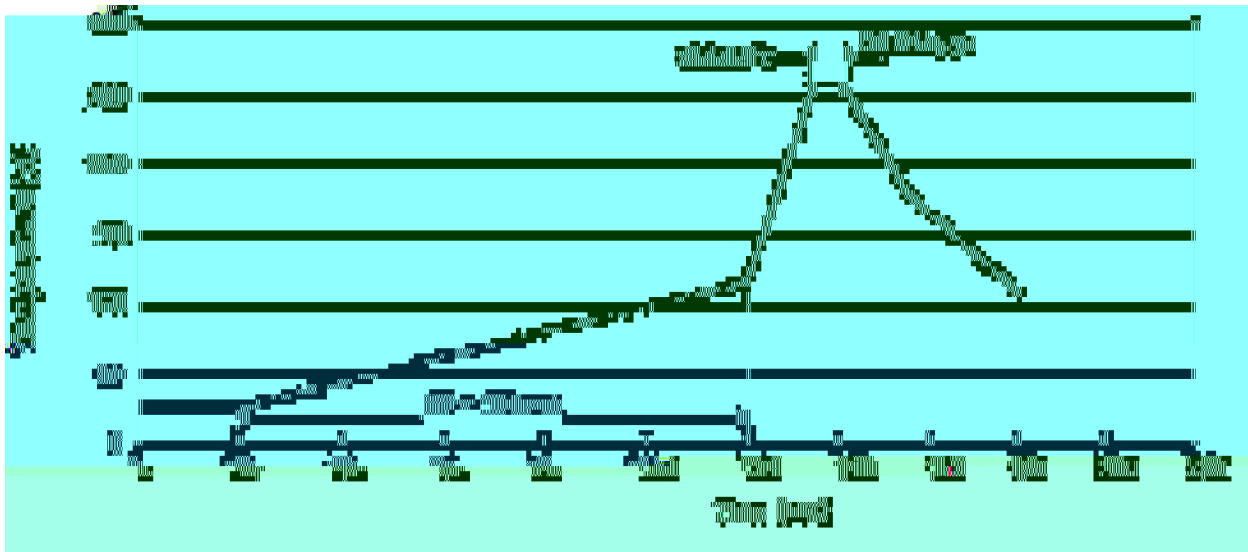
Note:

BR: Company Code.

BC639: Product Type.

10: 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;
 2 255 5 5 0.5sec;
 3 2 10 /sec.

- 1.Preheating:25~150 , Time:60~90sec.
 2.Peak Temp.:255 5 , Duration:5 0.5sec.
 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)		
	只 袋	袋 盒	只 盒	盒 箱	只 箱	袋	盒	箱

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	只 纸带	纸带 盒	纸带层 盒	盒 箱	只 箱	盒	箱
							小箱 , 大箱

/ Notices