

/ Descriptions

Silicon NPN transistor in a TO-92 Plastic Package.

/ Features

Small noise figure, high power gain, high f_T .

/ Applications

UHF low-noise amplifiers, wide-band amplifiers.

/ Equivalent Circuit



/ Pinning



PIN1 Collector PIN 2 Emitter PIN 3 Base

/ hFE Classifications & Marking

h_{FE} Classifications Symbol	C	D	E
h_{FE} Range	40~80	60~120	100~200

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	20	V
Collector to Emitter Voltage	V_{CEO}	12	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current - Continuous	I_C	100	mA
Base Current - Continuous	I_B	40	mA
Collector Power Dissipation	P_C	600	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

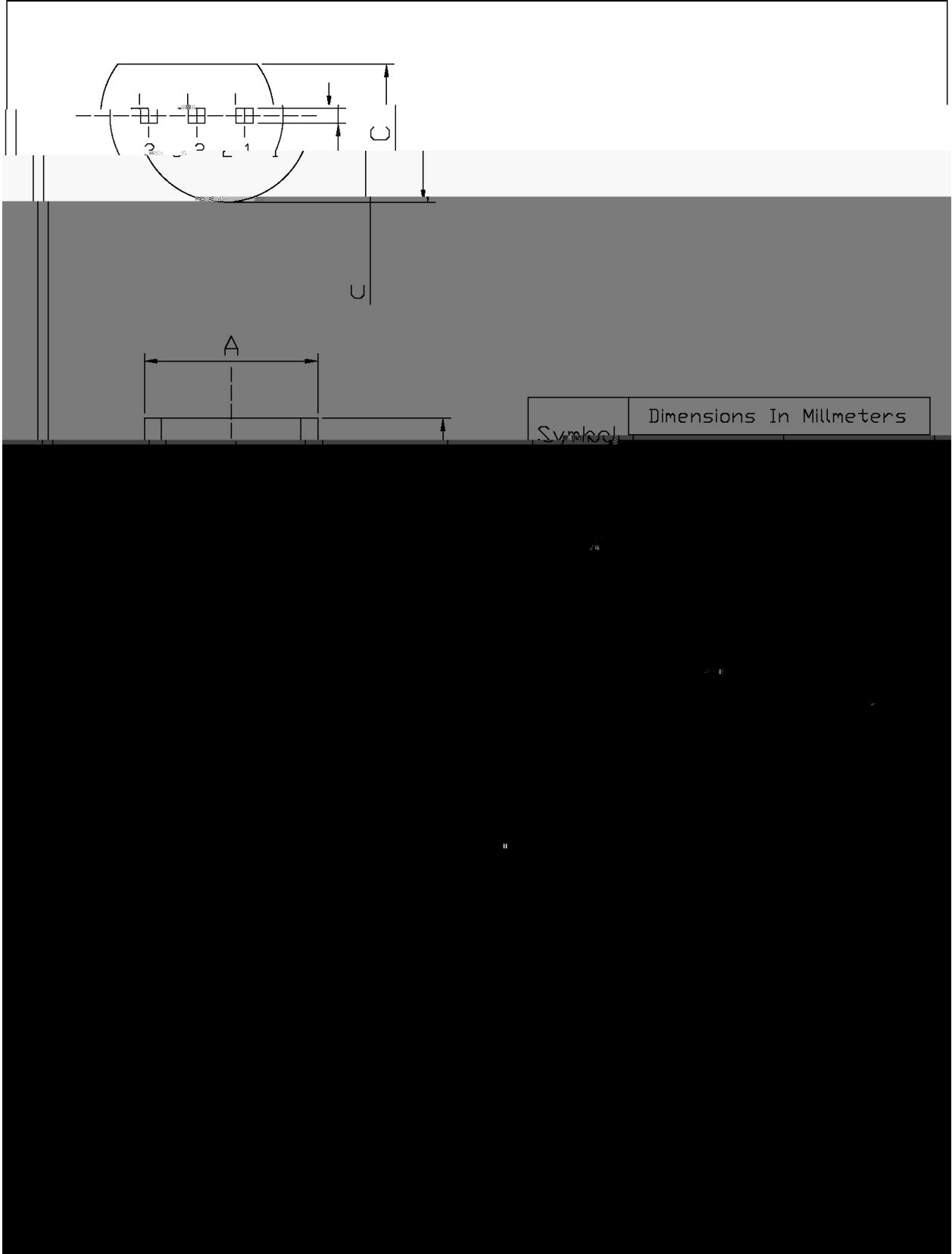
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=12V$ $I_E=0$			1.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=2.0V$ $I_C=0$			10	A
DC Current Gain	h_{FE}	$V_{CE}=10V$ $I_C=20mA$	40		200	
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=20mA$		5.0		GHz
Output Capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$		1.0		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=10V$ $f=1.0MHz$		0.7		pF
Forward Transfer Gain	$ S_{21e} ^2$	$V_{CE}=10V$ $I_C=20mA$ $f=0.9GHz$	8.5	10		dB
Maximum Available Power Gain	MAG	$V_{CE}=10V$ $I_C=20mA$ $f=0.9GHz$		14		dB
Noise Figure	NF	$V_{CE}=10V$ $I_C=5.0mA$ $f=0.9GHz$		1.5	3.0	dB

2SC3779

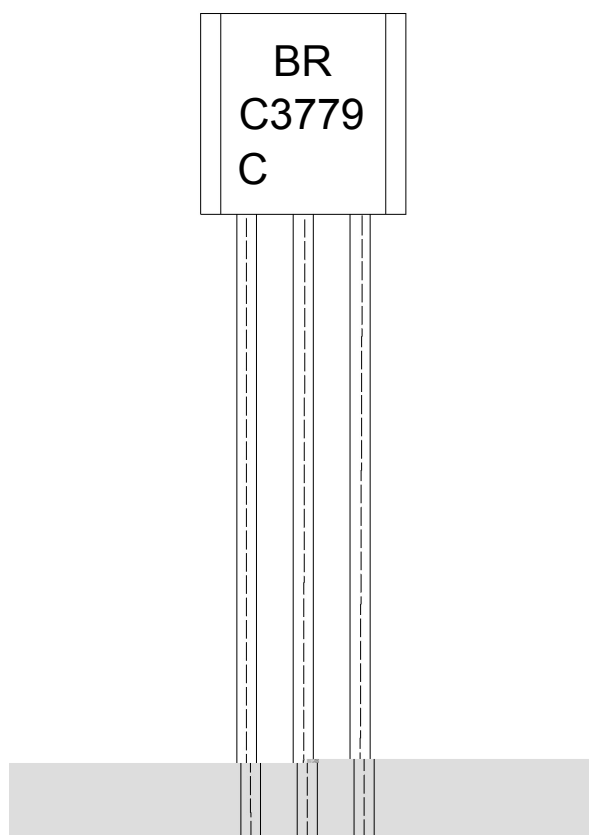
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



Note:

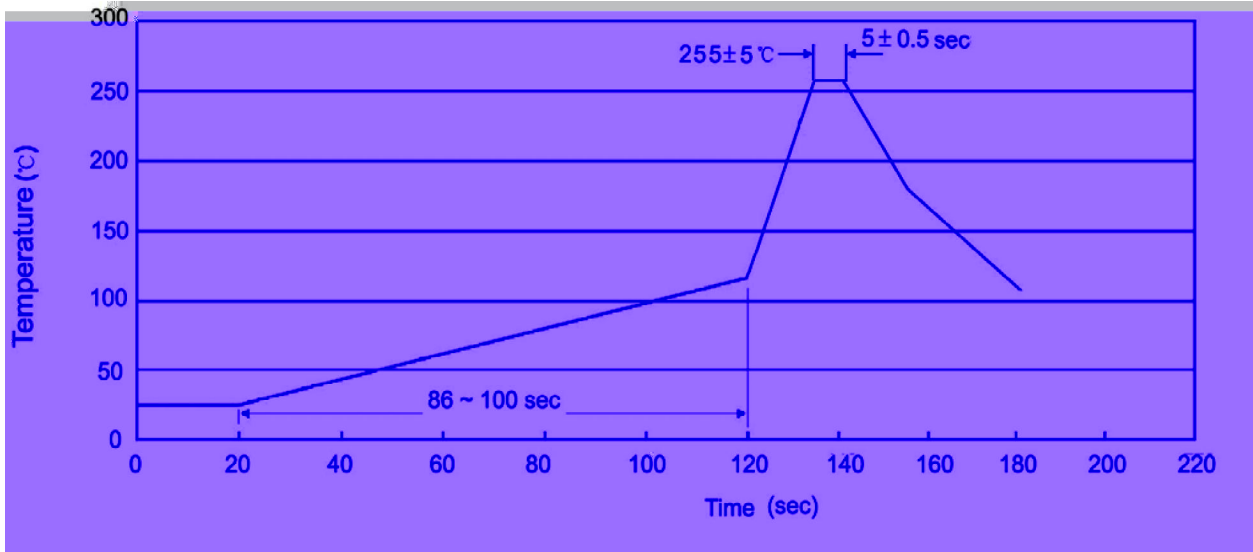
BR: Company Code.

C3779: Product Type.

C: 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 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