

/ Descriptions

Silicon NPN transistor in a TO-126F Plastic Package.

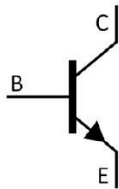
/ Features

High breakdown voltage, small reverse transfer capacitance and excellent high frequency characteristic.

/ Applications

Ultrahigh-definition CRT display, video output applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	C	D	E	F
h_{FE} Range	40~80	60~120	100~200	160~320

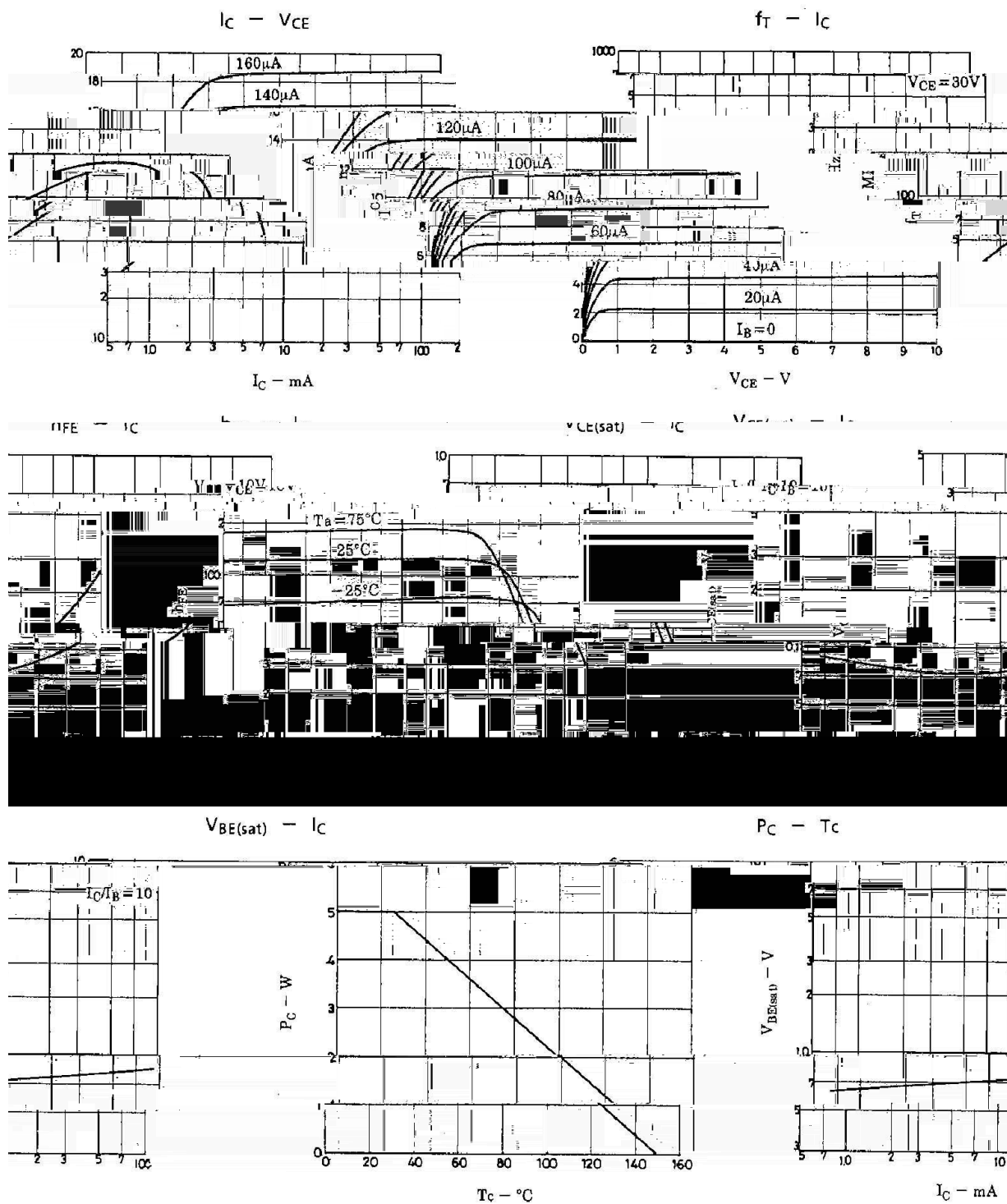
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	200	V
Collector to Emitter Voltage	V_{CEO}	200	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	100	mA
Collector Current – Continuous(Pulse)	I_{CP}	200	mA
Collector Power Dissipation	P_C	1.2	W
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}	$I_C=10\text{ A}$ $I_E=0$	200			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$ $R_{BE}=\infty$	200			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\text{ A}$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=150\text{V}$ $I_E=0$			0.1	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0\text{V}$ $I_C=0$			0.1	A
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}$ $I_C=10\text{mA}$	40		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20\text{mA}$ $I_B=2.0\text{mA}$			0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20\text{mA}$ $I_B=2.0\text{mA}$			1.0	V
Transition Frequency	f_T	$V_{CE}=30\text{V}$ $I_C=10\text{mA}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=30\text{V}$ $f=1.0\text{MHz}$		2.6		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=30\text{V}$ $f=1.0\text{MHz}$		1.7		pF

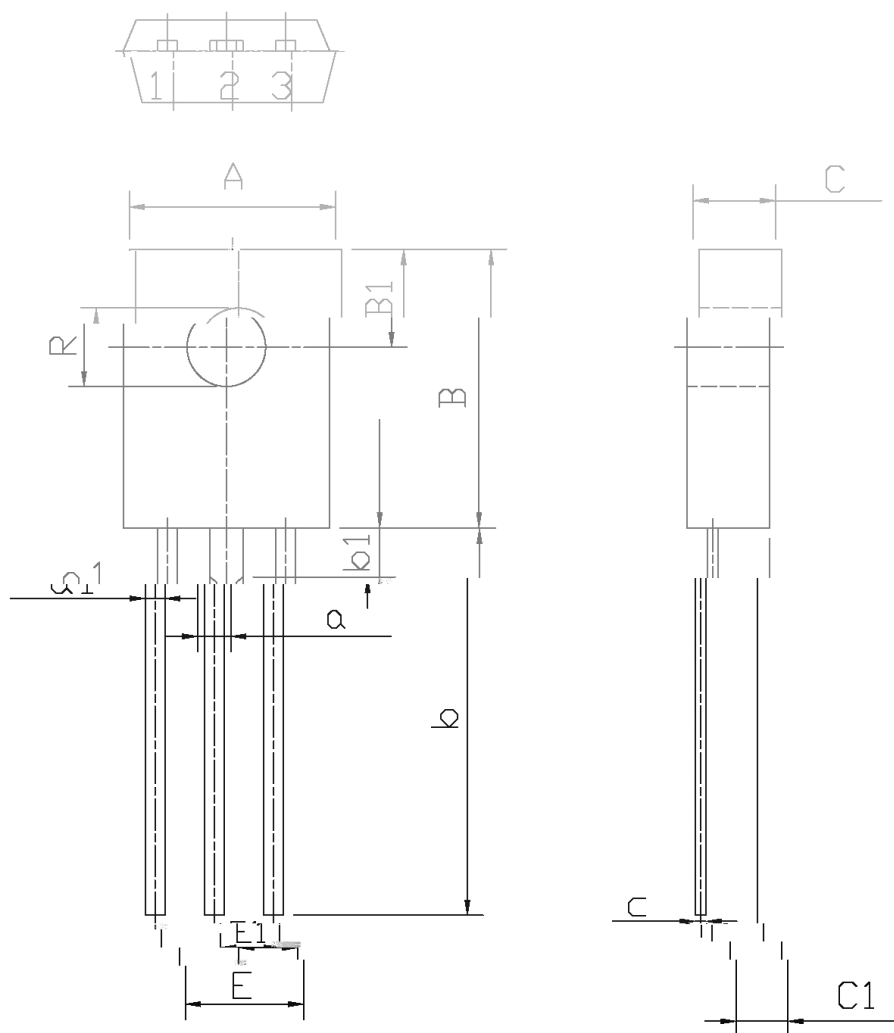
/ Electrical Characteristic Curve



/ Package Dimensions

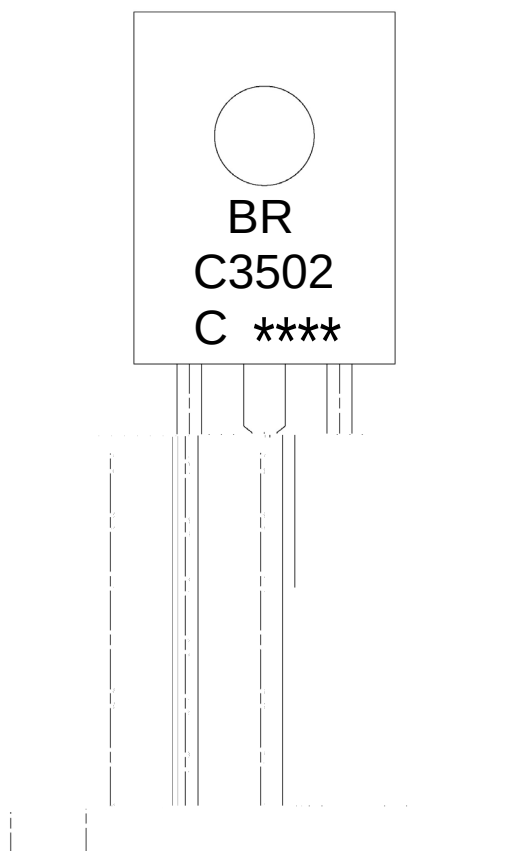
1 2 3

单位: mm



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	7.8	8.2	a1	0.66	0.86
B	10.8	11.2	E	4.4	4.8
B1	3.8	4.2	C	3.1	3.3
R	2.05	3.15	C1	1.9	2.1
b	14	16	c	0.3	0.6
b1	1.9		a	1.27	
E1	2.1	2.5			

/ Marking Instructions



Note:

BR: Company Code

C3502: Product Type.

C h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

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



- Note:
- 1.Preheating:25~150 , Time:60~90sec.
 - 2.Peak Temp.:255 5 , Duration:5 0.5sec.
 - 3. Cooling Speed: 2~10 /sec.

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: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量	Dimension 包装尺寸 (unit: mm ³)
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