

SOT-89

NPN

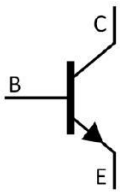
Silicon NPN transistor in a SOT-89 Plastic Package.

h_{FE} 2SB798

Low $V_{CE(sat)}$, excellent h_{FE} linearity, complements the 2SB798.

Audio frequency power amplifier applications.

/ Equivalent Circuit



PIN1	Base	PIN 2	Collector	PIN 3	Emitter
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/ Marking

hFE016WFE2WFD1L554ERG)DeRrU,r=bU r=RBG sbU 9 sbU À sbU Uh4(GpAbhA/BKpC/Ny

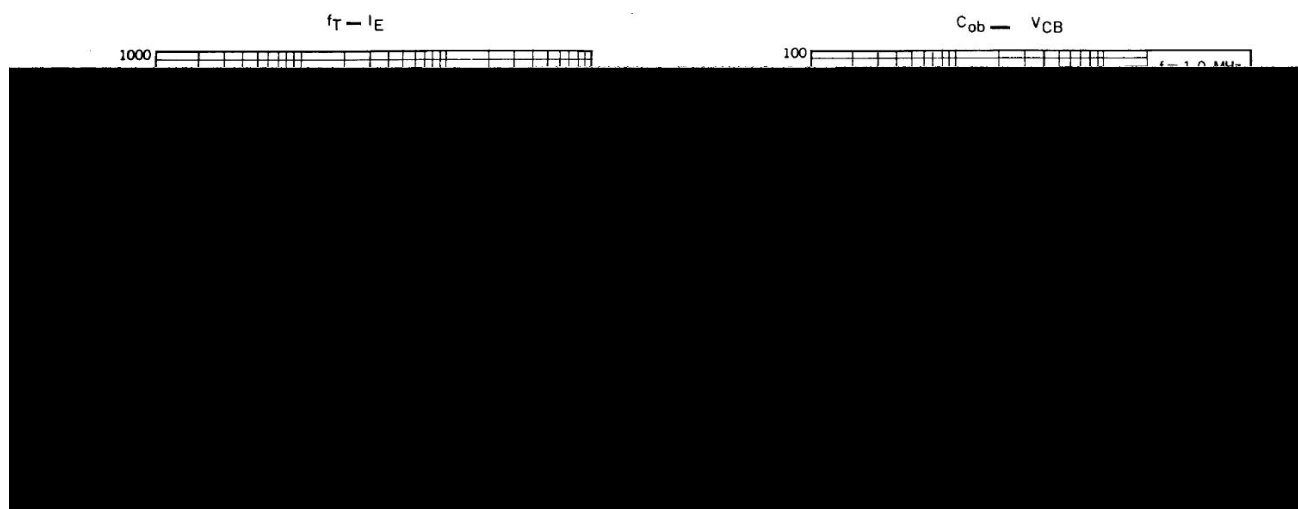
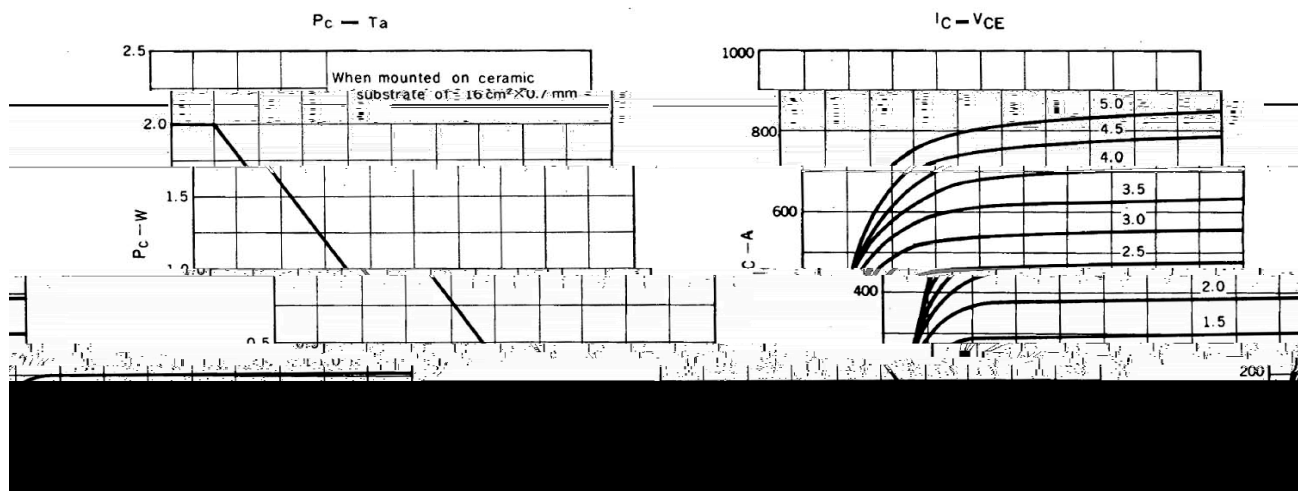
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$ -)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current-Continuous	I_C	1.0	A
Collector Current -Continuous(Pulse)	I_{CP}	1.5	A
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation*	* P_C	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

mounted on ceramic substrate($16\text{mm}^2 \times 0.7\text{mm}$) $16\text{mm}^2 \times 0.7\text{mm}$ / Electrical Characteristics($T_a=25^\circ\text{C}$ -)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30\text{V}$ $I_E=0$			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0\text{V}$ $I_C=100\text{mA}$	90	200	400	
	$h_{FE(2)}$	$V_{CE}=1.0\text{V}$ $I_C=1.0\text{A}$	50	140		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0\text{A}$ $I_B=100\text{mA}$		0.21	0.4	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.0\text{A}$ $I_B=100\text{mA}$		1.0	1.2	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=6.0\text{V}$ $I_C=10\text{mA}$	600	630	700	mV
Transition Frequency	f_T	$V_{CE}=6.0\text{V}$ $I_C=10\text{mA}$		130		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=6.0\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		22		pF

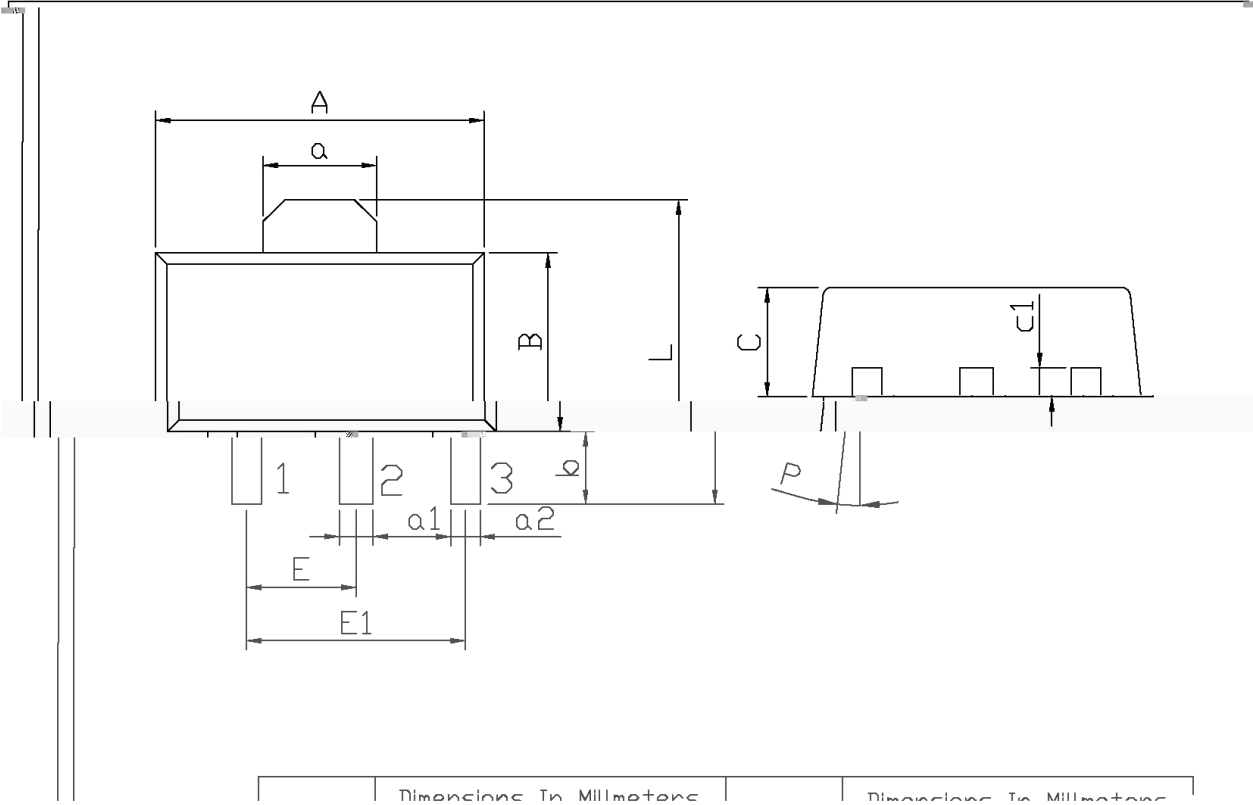
/ Electrical Characteristic Curve



/ Package Dimensions

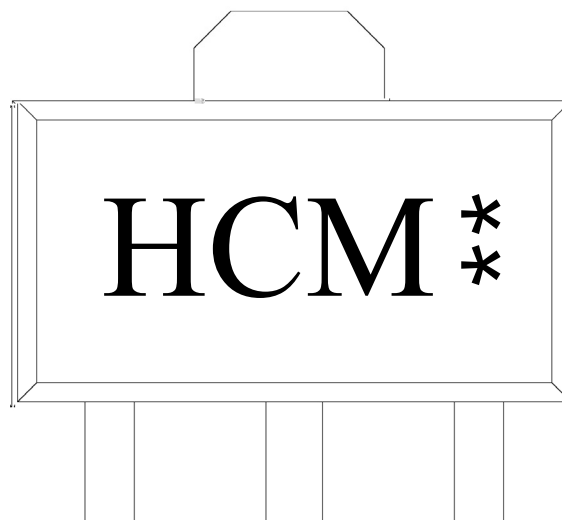
SOT-89

单位: mm



L	3.8/8	4.4/8	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50
E	1.40	1.60	P	6°	
E1	2.80	3.20			
b	0.80	1.20			

/ Marking Instructions



H

C

M

h_{FE}

**

Note:

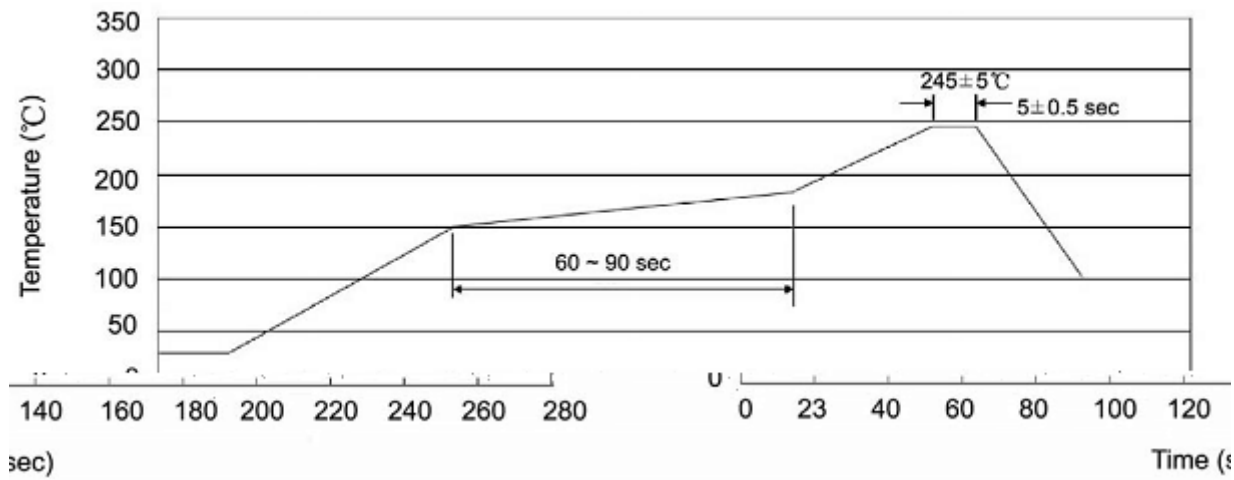
H: Company Code.

C: Product Type.

M h_{FE} Classifications Symbol

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

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Note:

- | | | | | | |
|---|-------|-----|----|-----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	8	56,000	7" ×12	180×120×180	385×257×392

/ Notices