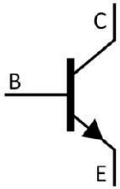


SOT-89          NPN                          Silicon NPN transistor in a SOT-89 Plastic Package.

$h_{FE}$                           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

### / Marking

$h_{FE}$

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(Pluse)	$I_{CP}$	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(16cmm<sup>2</sup>×0.7mm)

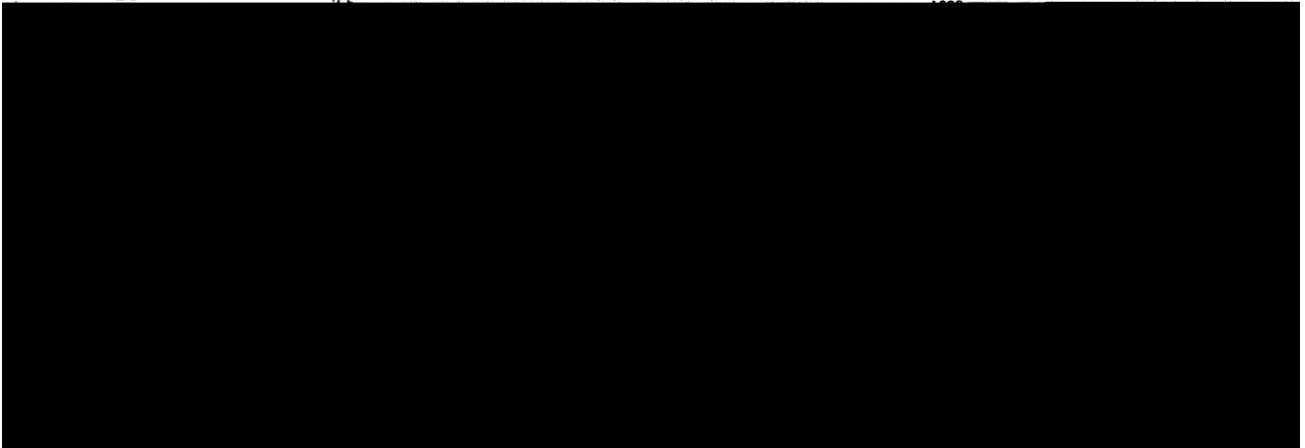
\* 16cmm<sup>2</sup>×0.7mm

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

/ Electrical Characteristic Curve

$P_c - T_a$

$I_C - V_{CE}$

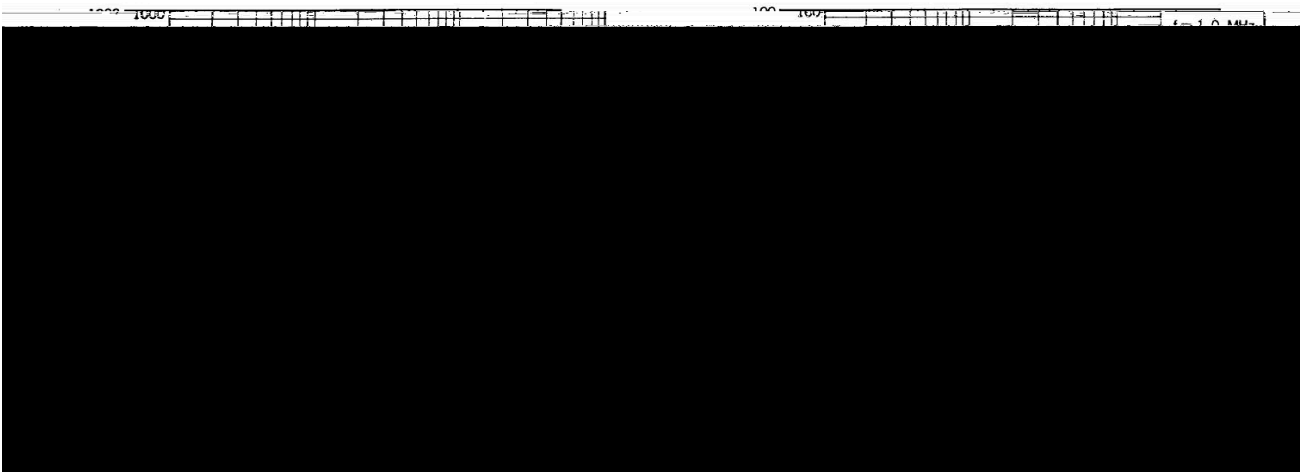


$V_{BE(sat)} - I_C$



$f_T - I_C$

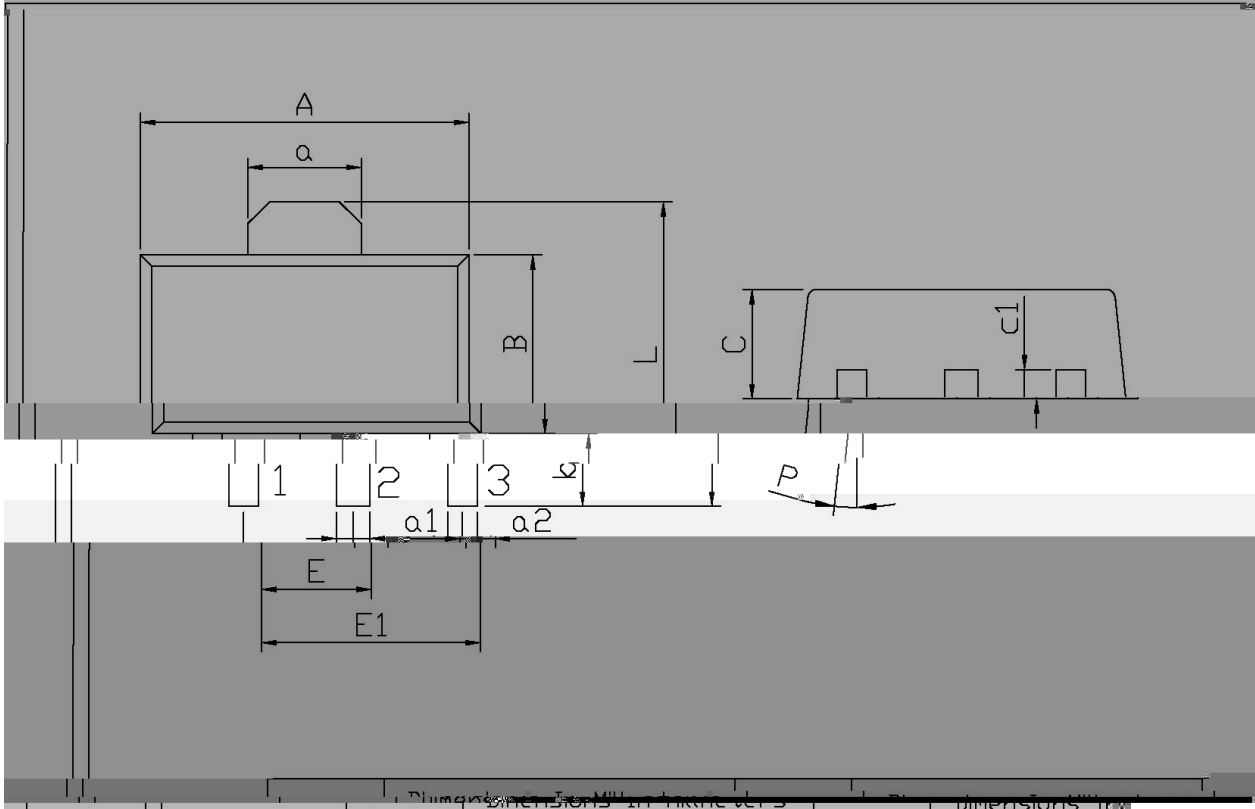
$S_{db} - V_{CE}$



/ Package Dimensions

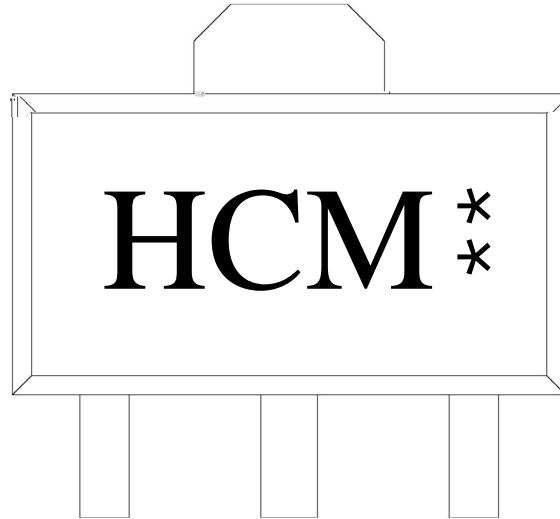
SOT-89

单位: mm



Symbol	2.35	2.65	2.2	2.30	2.50
L	2.35/8	4.478	C	1.40	1.7
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:

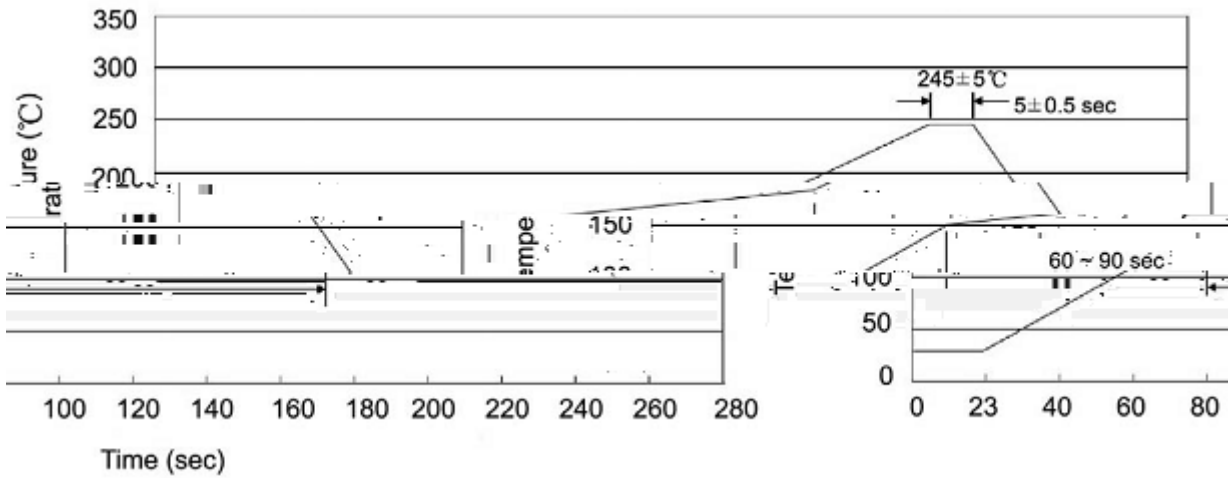
H: Company Code.

C: Product Type.

M  $h_{FE}$  Classifications Symbol

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

( ) / K\d g\iXk i\`Gif]`d`]fi`@`l`]\]fn`Jfd` \i`e`^ZGY\$=i\`z



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 <sup>3</sup> )		
	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