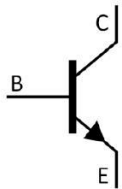


TO-92 NPN Silicon NPN transistor in a TO-92 Plastic Package.

High I_C , high h_{FE}

Use in general-purpose Speech Synthesizer(Voice Rom) I_C audio output driver stage amplifier applications.

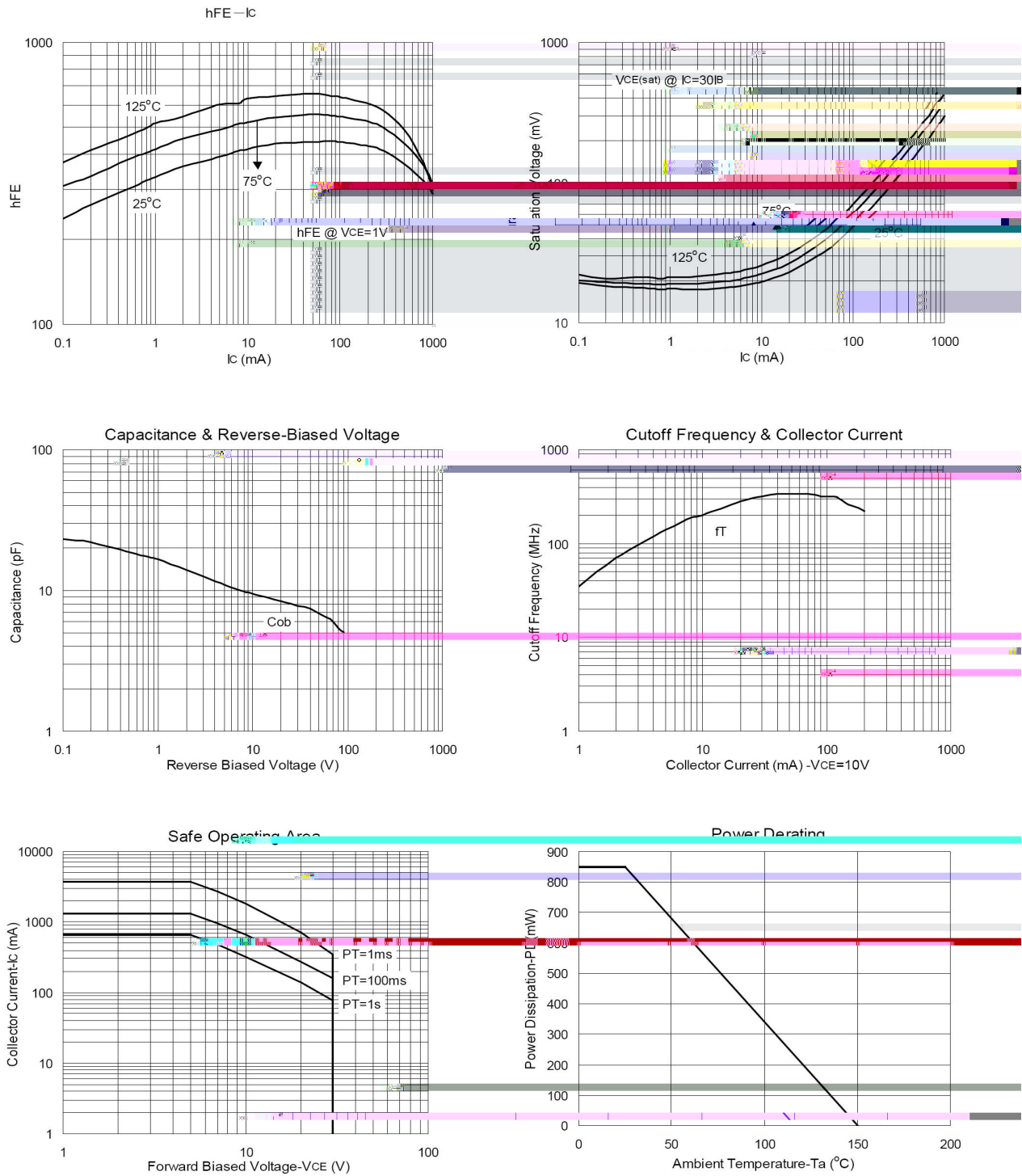


PIN1 Base PIN 2 Collector PIN 3 Emitter

h_{FE} Classifications Symbol	B	C	D
h_{FE} Range	300~550	500~700	650~1000

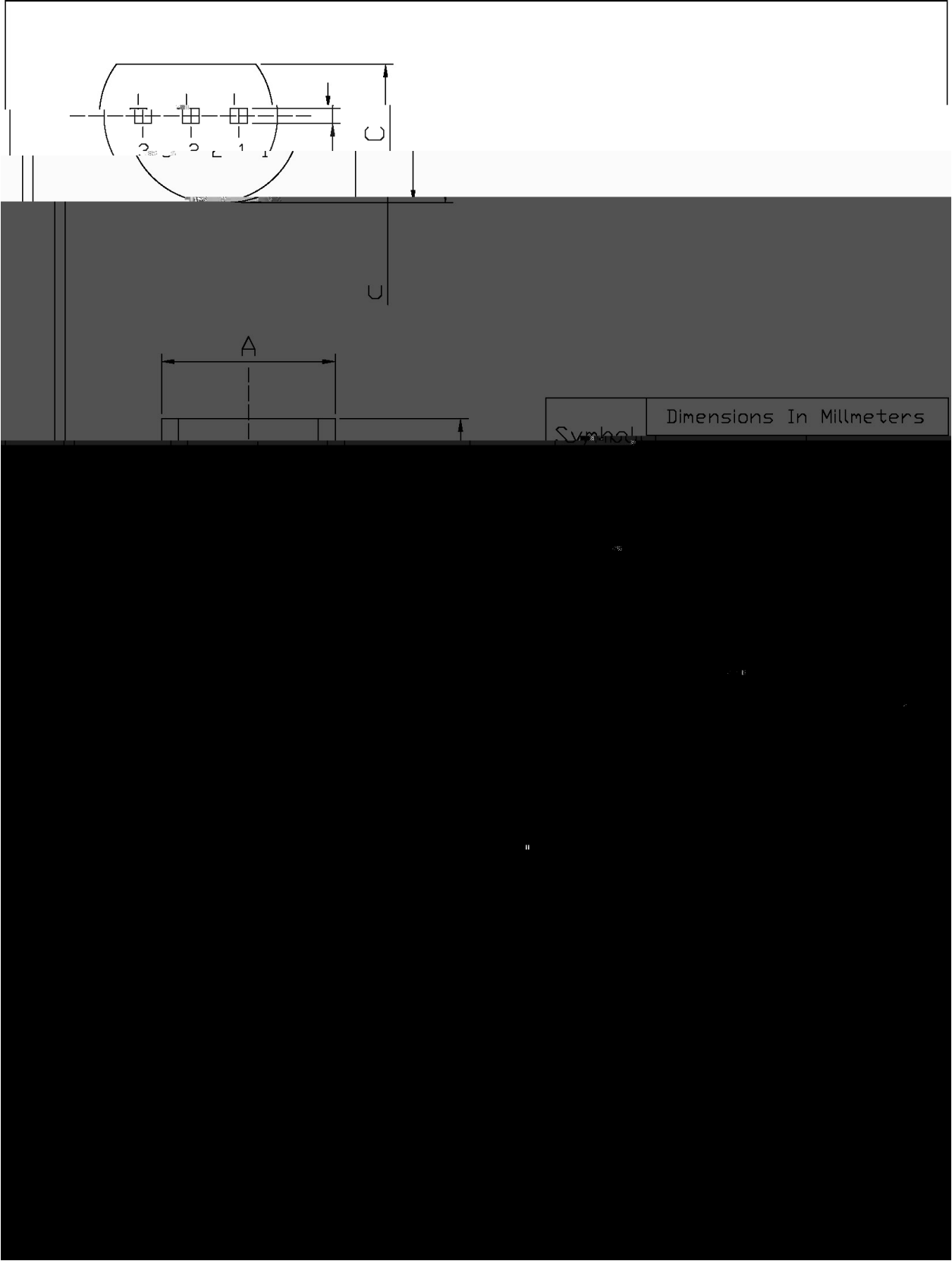
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	1.0	A
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 150	

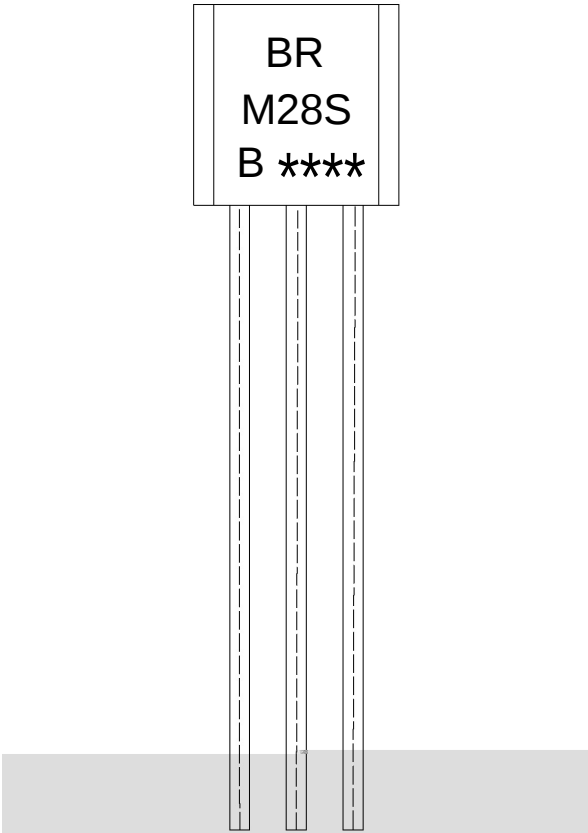
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=0.1mA$ $I_E=0$	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=0.1mA$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=40V$ $I_E=0$			1.0	A
Collector Cut-Off Current	I_{CEO}	$V_{CE}=20V$ $I_B=0$			5.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	300		1000	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=500mA$	300			
	$h_{FE(3)}$	$V_{CE}=10V$ $I_C=300mA$	300			
	$h_{FE(4)}$	$V_{CE}=1.0V$ $I_C=1.0mA$	290			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=600mA$ $I_B=20mA$			0.55	V
Transition Frequency	f_T	$V_{CE}=10V$ $f=30MHz$ $I_C=50mA$	100			MHz



T0-92

Unit: mm

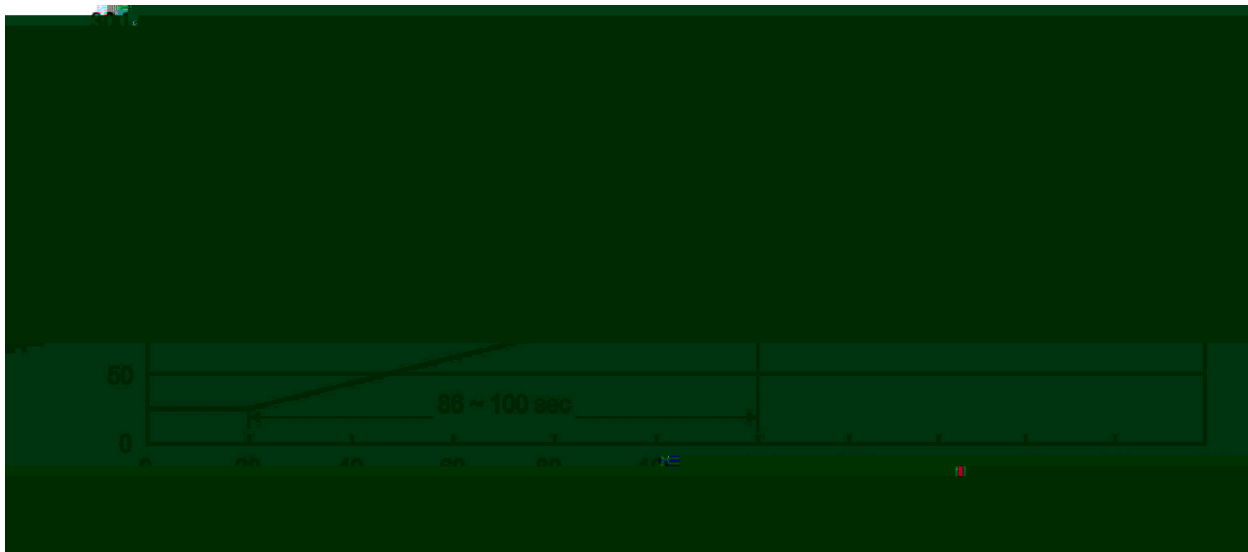




BR:
M28S
B: h_{FE}

Note:

BR: Company Code.
M28S: Product Type.
B: h_{FE} Classifications Symbol
****: Lot No. Code,code change with Lot No.



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. |

270±5	10±1 sec.	Temp:270±5	Time:10±1 sec
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/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/tape 只/纸带	Tape/Inner Box 纸带/盒	Rows/Inner Box 纸带层/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Inner Box 盒	Outer Box 箱
TO-92	3,000	1	120	10	30,000	328×230×42	小箱 480×346×235, 大箱 547×407×268