

/ Descriptions

TO-252 PNP Silicon PNP transistor in a TO-252 Plastic Package.

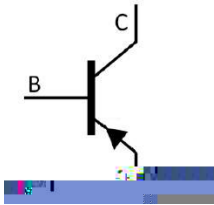
/ Features

hFE
Excellent hFE linearity, low $V_{CE(sat)}$, high P_C .

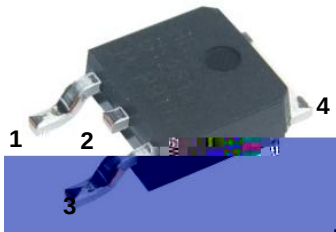
/ Applications

Audio frequency amplifier and switching, especially in hybrid integrated circuits applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	M	L	K
h_{FE} Range	100 200	160 320	200 400

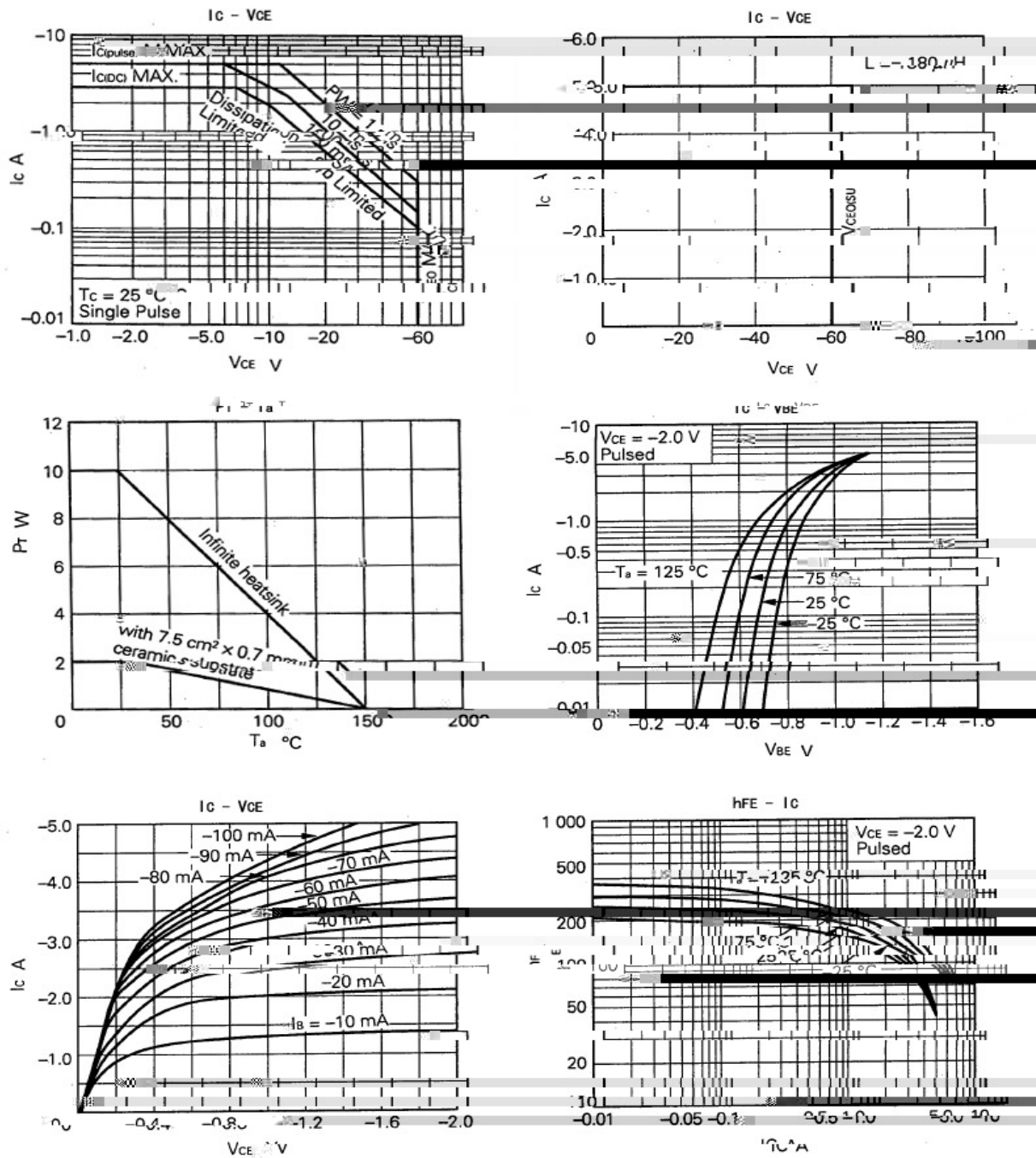
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-7.0	V
Collector Current - Continuous	I_C	-3.0	A
Collector Power Dissipation*	$*P_C$	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	

* 7.5×7.5×0.7mm

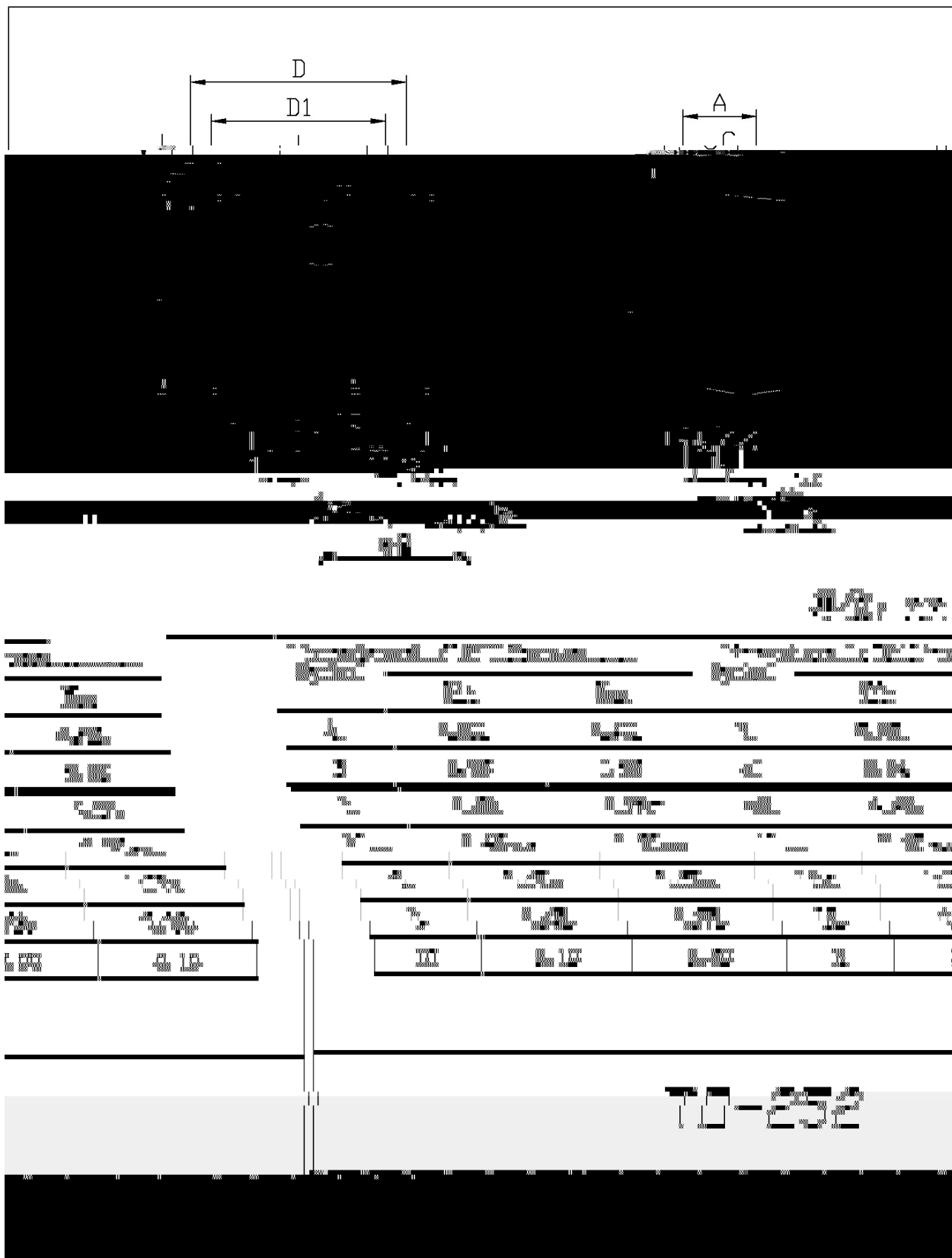
*When mounted on a 7.5×7.5×0.7mm ceramic board.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -0.1mA$ $I_E = 0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -1.0mA$ $I_B = 0$	-60			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -0.1mA$ $I_C = 0$	-7.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -60V$ $I_E = 0$			-10	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -7.0V$ $I_C = 0$			-10	A
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2.0V$ $I_C = -600mA$	100		400	
	$h_{FE(2)}$	$V_{CE} = -2.0V$ $I_C = -200mA$	60			
	$h_{FE(3)}$	$V_{CE} = -2.0V$ $I_C = -2.0A$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -1.5A$ $I_B = -150mA$			-0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.5A$ $I_B = -150mA$			-1.2	V
Transition Frequency	f_T	$V_{CE} = -5.0V$ $I_C = -1.5A$		50		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V$ $I_E = 0$ $f = 1.0MHz$		40		pF
Turn-On Time	t_{on}	$V_{CC} = -10V$ $I_C = -1.0A$ $I_{B1} = -I_{B2}$				

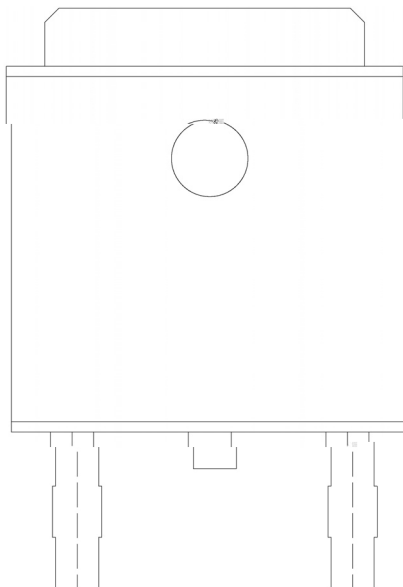
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

B1261

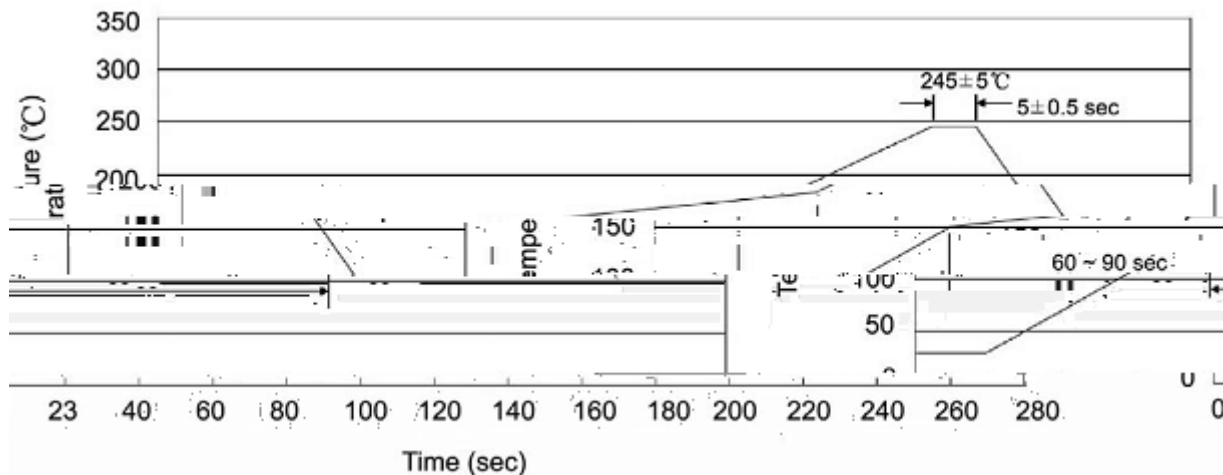
M:

h_{FE}

Note:

BR:

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	5	25,000	13 ×16	360×360×50	385×257×392

/ TUBE

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-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180