

/ Descriptions

Silicon PNP transistor in a TO-252 Plastic Package.

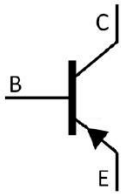
/ Features

Low $V_{CE(sat)}$, excellent DC current gain characteristics, complements the 2SD2118.

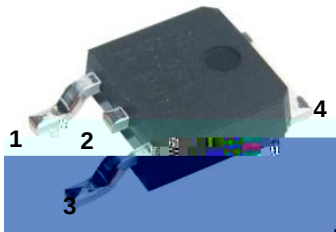
/ Applications

Medium power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	82 180	120 270	180 390

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-5	A
Peak Collector Current – Continuous	I_{CM}	-10	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation*	$*P_C(T_C=25)$	10	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

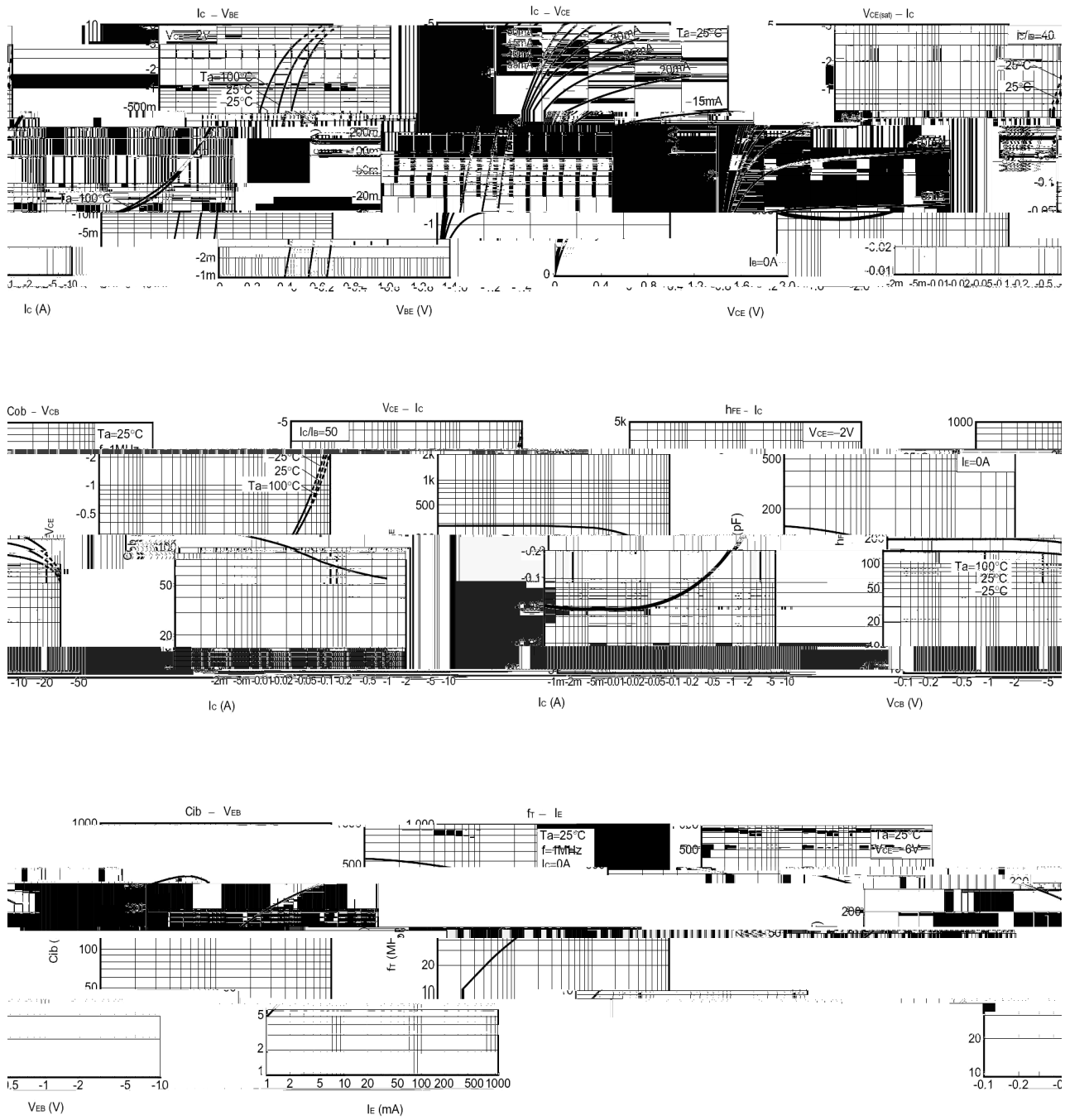
*mounted On40×40×0.7mm ceramic board.

/ Electrical Characteristics(Ta=25)

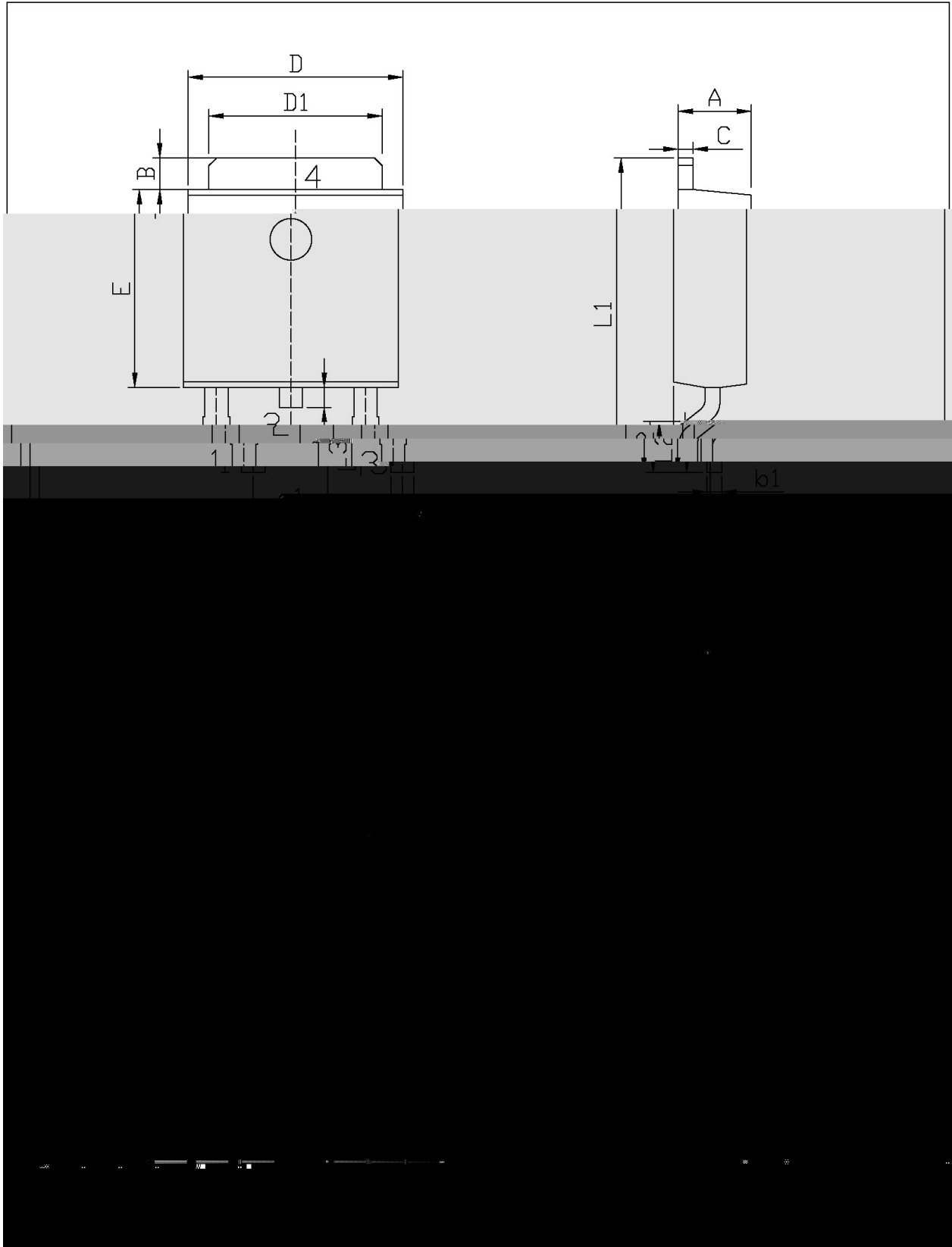
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-50\mu A$ $I_E=0$	-30			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-50\mu A$ $I_C=0$	-6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-20V$ $I_E=0$			-0.5	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-0.5	μA
DC Current Gain	h_{FE}	$V_{CE}=-2.0V$ $I_C=-0.5A$	82		390	
Collector to Emitter Saturation Voltage*	$*V_{CE(sat)}$	$I_C=-4.0A$ $I_B=-0.1A$			-1.0	V
Transition Frequency	f_T	$V_{CE}=-6.0V$ $f=30MHz$ $I_C=-50mA$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20V$ $f=1.0MHz$ $I_E=0$		60		pF

*:measured using pulse current.

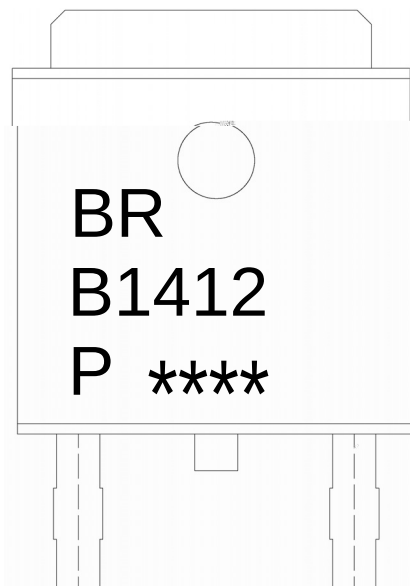
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

h_{FE}

Note:

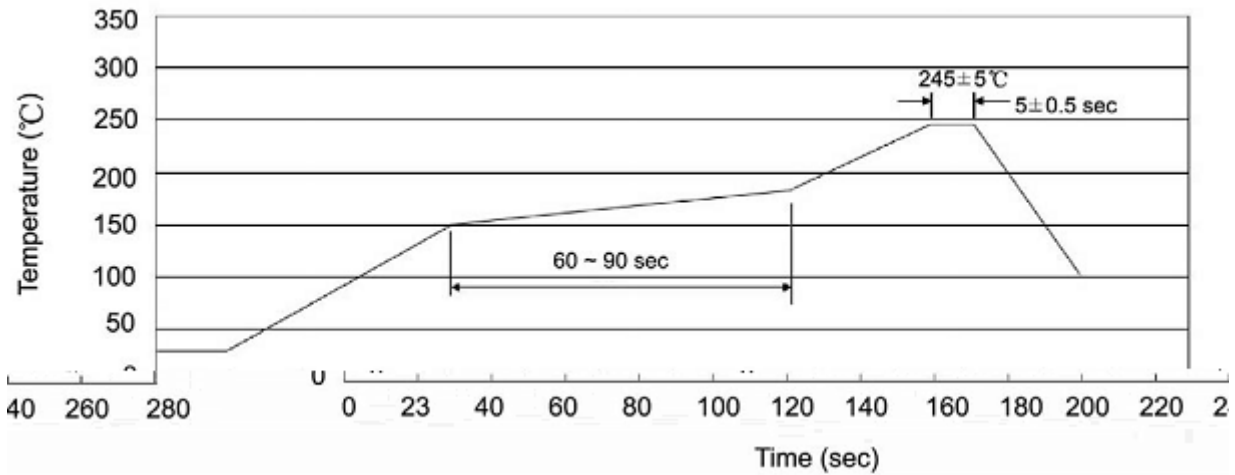
BR: Company Code

B1412: Product Type.

P: 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
TO-252	2,500	2	5,000	5	25,000	13 ×16	360×360×50	385×257×392

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices