

/ Descriptions

Silicon NPN transistor in a TO-252 Plastic Package.

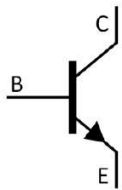
/ Features

High breakdown voltage ,Low collector output capacitance ,High transition frequency.

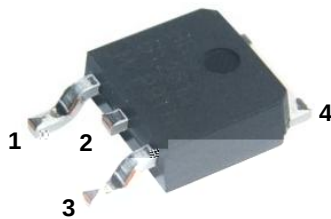
/ Applications

Power supplies, relay drivers, lamp drivers, and automotive wiring.

/ Equivalent Circuit



/ Pinning



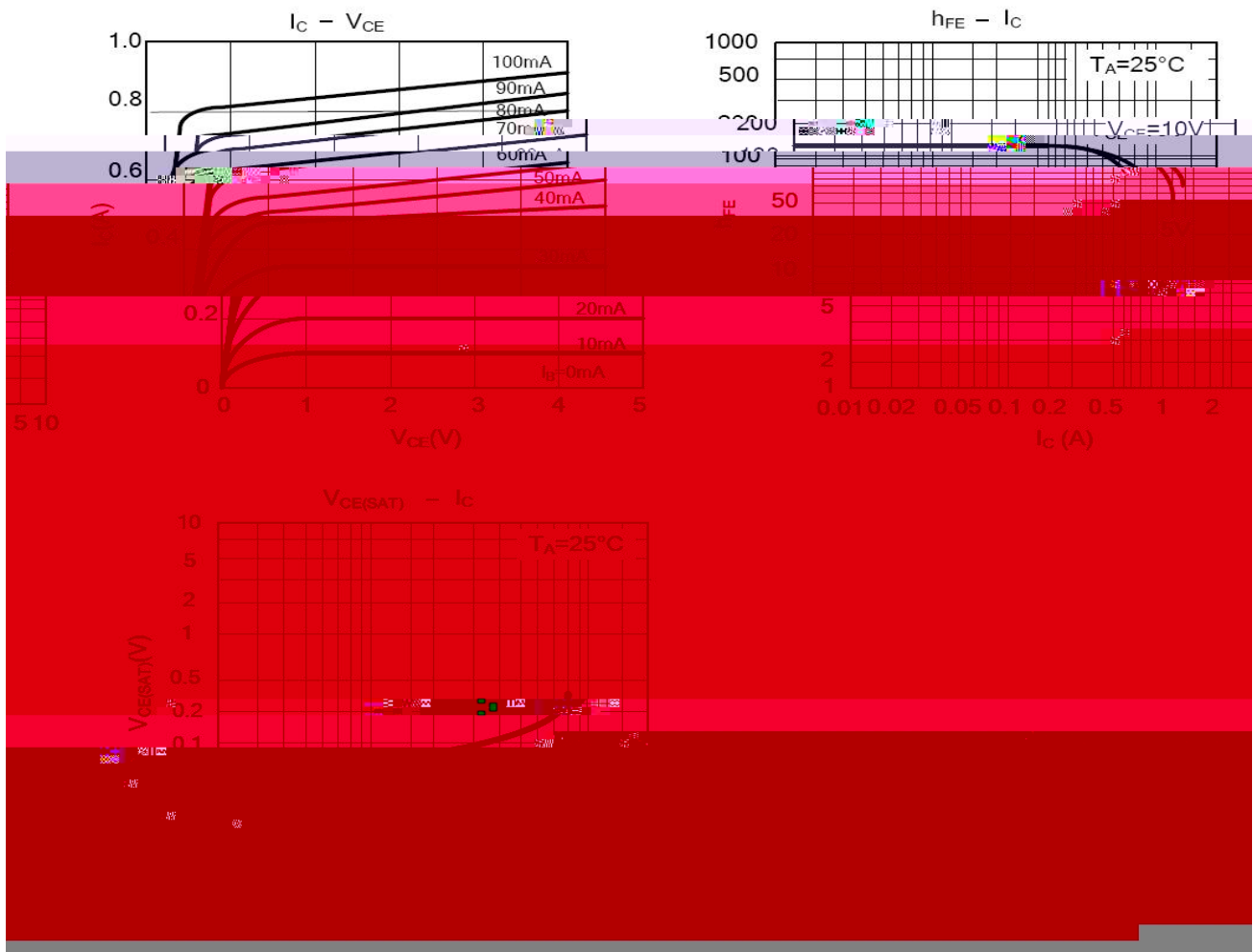
PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

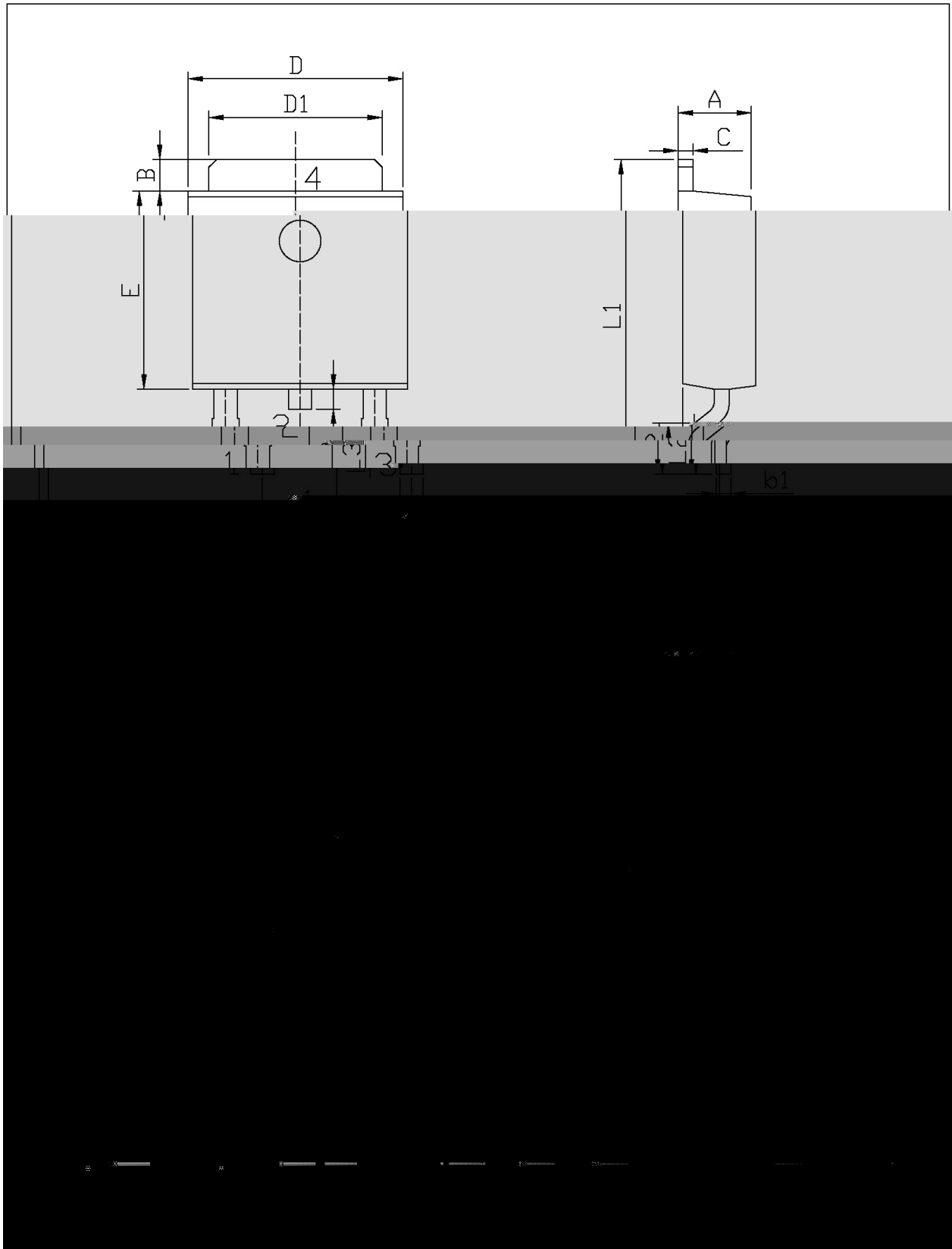
h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	82 180	120 270	180 390

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	2	A
Collector Current – Continuous(Pulse)	I_{CP}	3	A
Collector Power Dissipation	P_C	1.75	W
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 150	

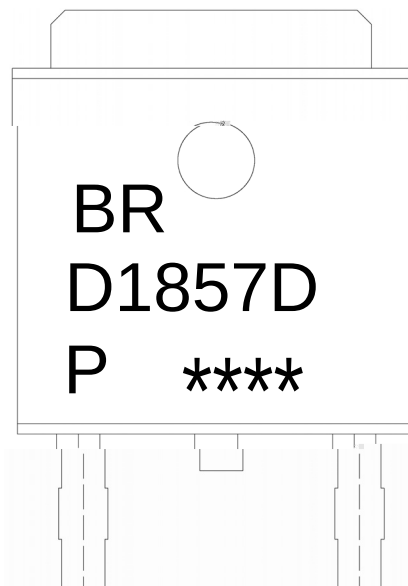
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

h_{FE}

Note:

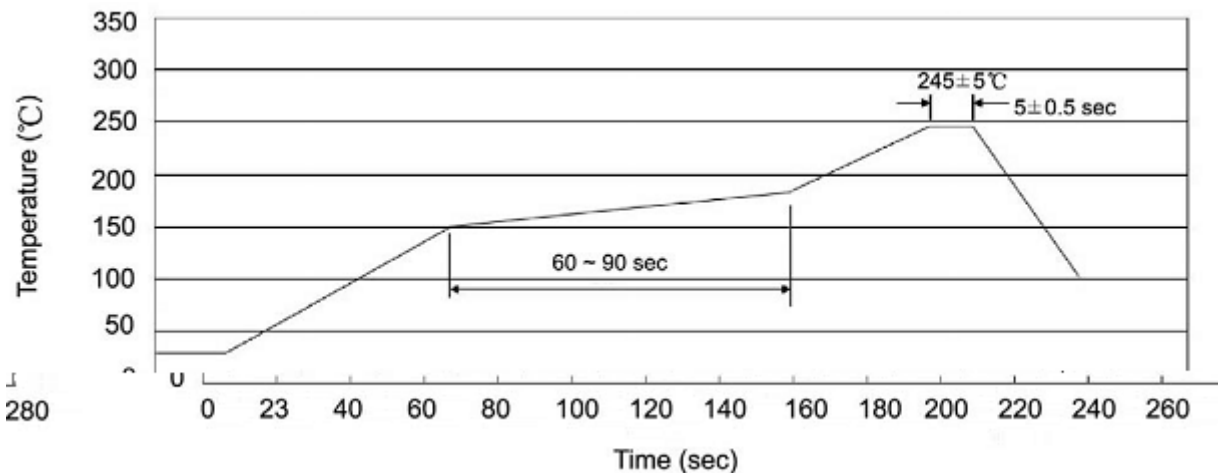
BR: Company Code

D1857D: Product Type.

P: h_{FE} Classifications Symbol

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

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



Note:

1. Preheating: 25~150 , Time: 60~90sec.
2. Peak Temp.: 245 ± 5 , Duration: 5 ± 0.5sec.
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

/ Notices