

/ Descriptions

TO-252

NPN

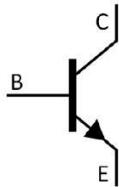
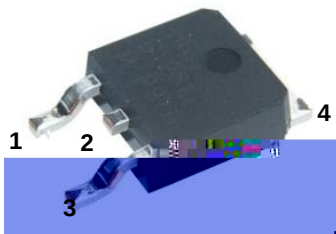
Silicon NPN transistor in a TO-252 Plastic Package.

/ Features

, 2SA1837D

High f_T , complementary pair with 2SA1837D.**/ Applications**

Power amplifier and driver stage amplifier applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Base

PIN 2,4 Collector

PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions .

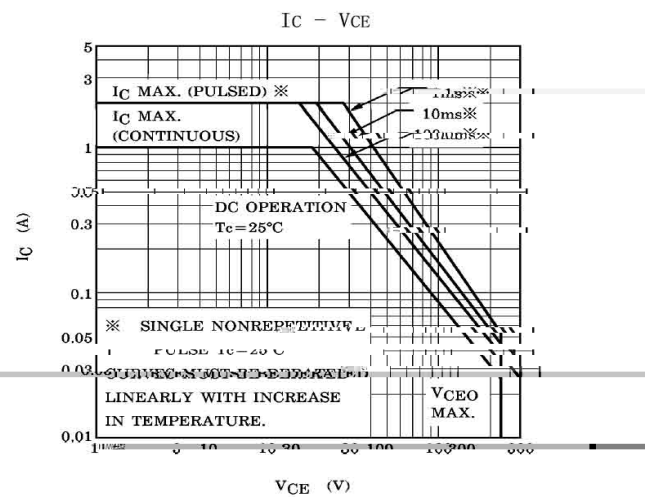
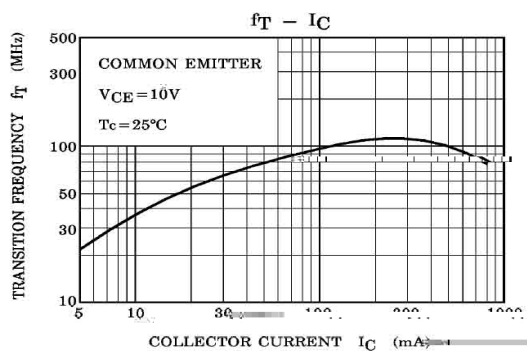
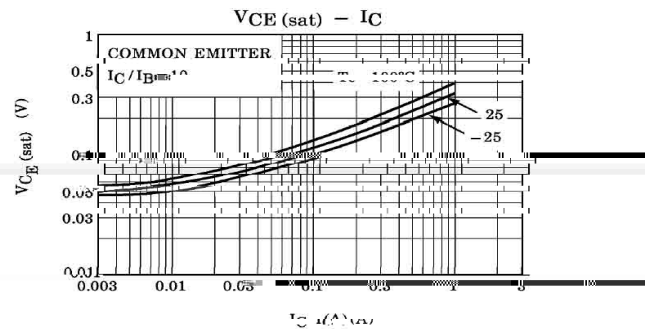
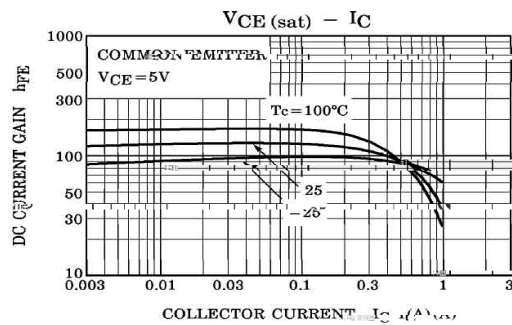
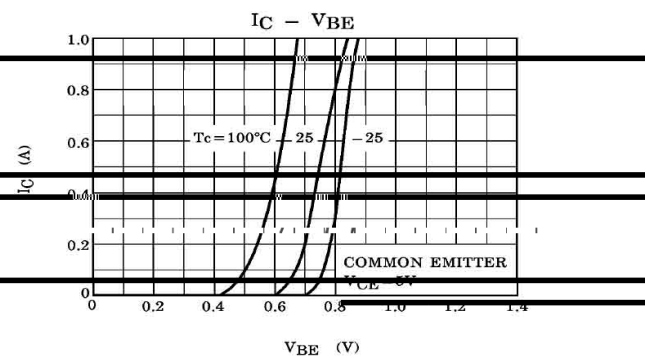
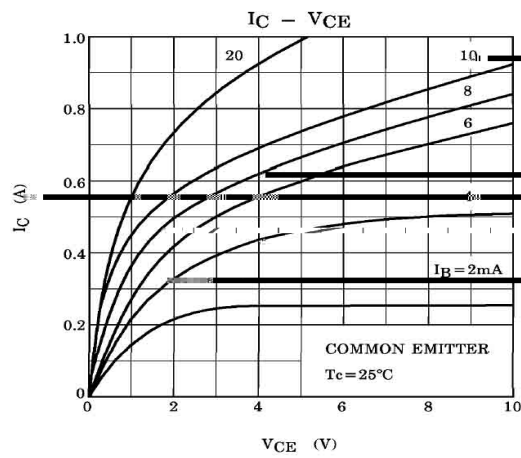
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	230	V
Collector to Emitter Voltage	V_{CEO}	230	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	1.0	A
Base Current – Continuous	I_B	0.1	A
Collector Power Dissipation	P_C	1.5	W
Collector Power Dissipation	$P_C(T_c=25)$	15	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

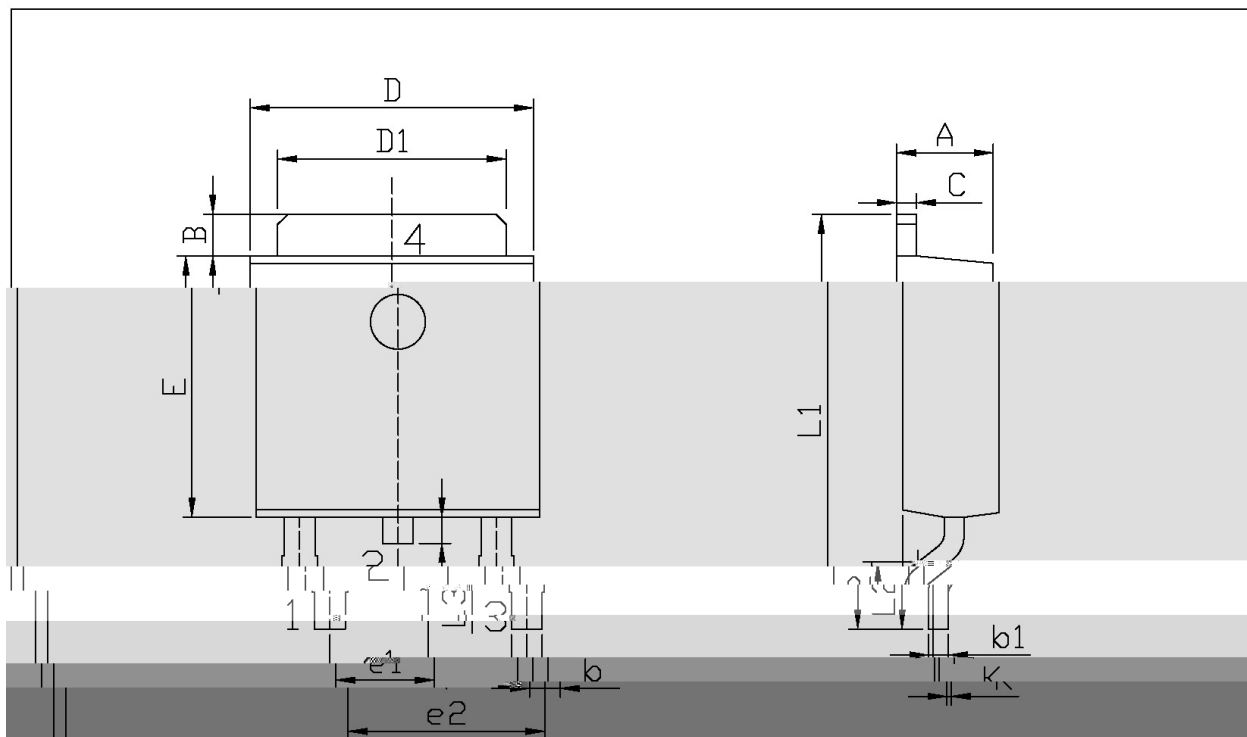
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	230			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=230V$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=100mA$	100		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$			1.5	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=500mA$			1.0	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=100mA$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		20		pF

/ Electrical Characteristic Curve



/ Package Dimensions

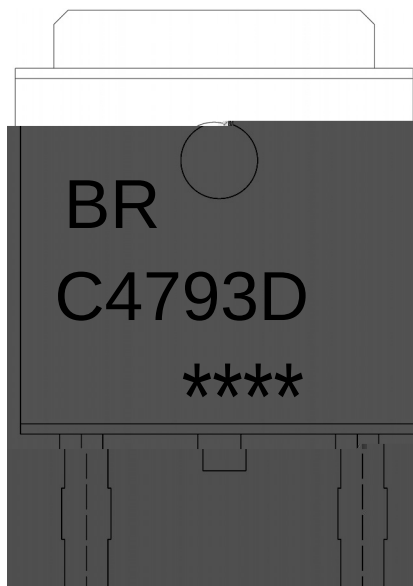


单位: mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.70	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

TO-252

/ Marking Instructions



BR

C4793D

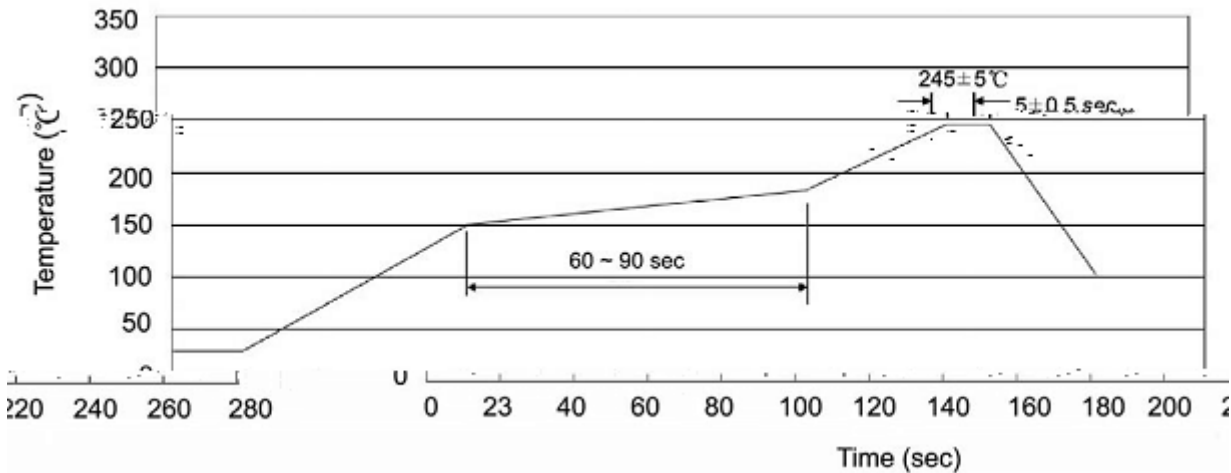
Note:

BR: Company Code

C4793D: Product Type.

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

() / 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

/ Notices