

/ Descriptions

TO-263

NPN

Silicon NPN transistor in a TO-263 Plastic Package.

/ Features

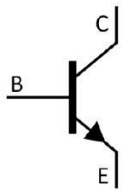
- MJE15037B

High DC current gain, High V_{CEO} , High f_T . Complementary pair with MJE15037B.

/ Applications

Designed for use as high-frequency drivers in audio amplifiers.

/ Equivalent Circuit



/ Pinning



PIN1 Base

PIN 2 4 Collector

PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	250	V
Collector to Emitter Voltage	V_{CEO}	250	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	8	A
Base current	I_B	2	A
Total power dissipation	P_D	2	W
	$P_D(T_C=25^\circ\text{C})$	50	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-65 ~ 150	
Thermal Resistance Junction-case	$R_{\theta JC}$	2.5	/W
Thermal Resistance Junction-ambient	$R_{\theta JA}$	62.5	/W

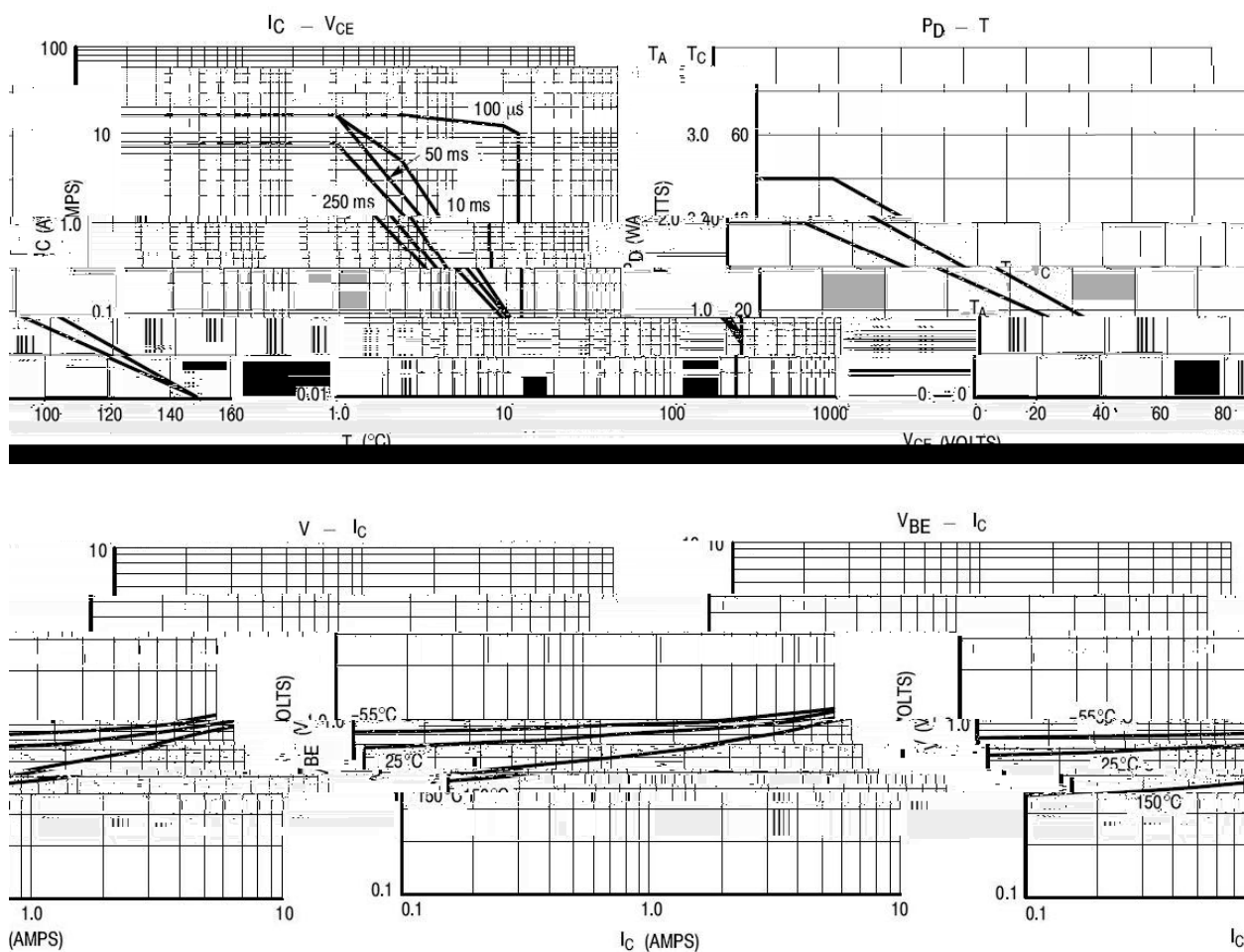
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10\text{mA}$ $I_B=0$	250			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=250\text{V}$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			1.0	μA
DC Current Gain	$*h_{FE(1)}$	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$	5000			
	$*h_{FE(2)}$	$V_{CE}=5.0\text{V}$ $I_C=0.5\text{A}$	5000			
	$*h_{FE(3)}$	$V_{CE}=5.0\text{V}$ $I_C=2.0\text{A}$	3000			
Collector to Emitter Saturation Voltage*	$*V_{CE(sat)}$	$I_C=1.0\text{A}$ $I_B=0.1\text{A}$			1.0	V
Base to Emitter On Voltage*	$*V_{BE(on)}$	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$			1.5	V
Transition Frequency	f_T	$V_{CE}=10\text{V}$ $I_C=500\text{mA}$ $f=1.0\text{MHz}$	30			MHz

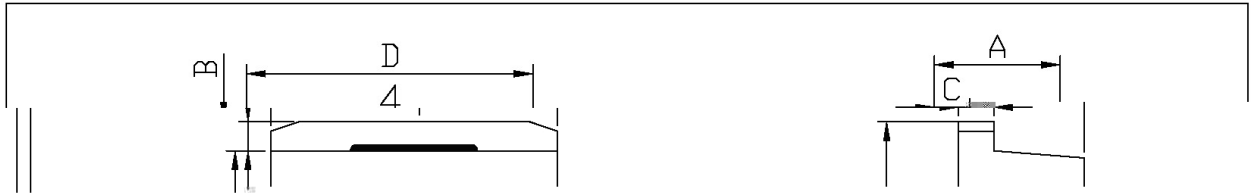
*

 $\leq 300\mu\text{s}$ $\leq 2\%$ *Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

/ Electrical Characteristic Curve



/ Package Dimensions

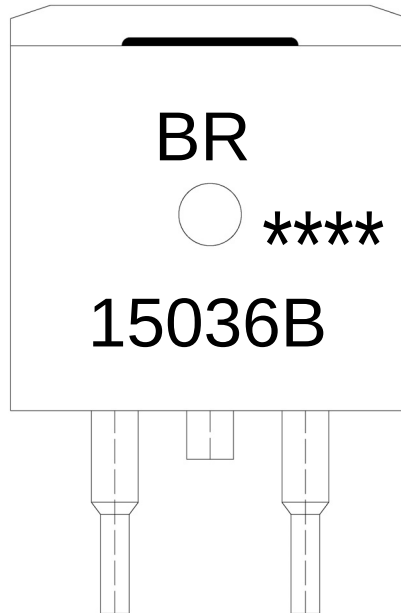


单位: mm

Symbol			Symbol		
	Min	Max		Min	Max
A	4.30	4.70	E	9.00	9.40
B	1.00	1.40	e1	2.34	2.74
b	0.70	0.90	e2	4.88	5.28
b1	1.15	1.35	L1	15.00	16.00
b2	0.40	0.60	L2	2.24	2.44
C	1.20	1.40	L3	1.20	1.40
D	9.80	10.20			

ТП-263

/ Marking Instructions



BR

15036B

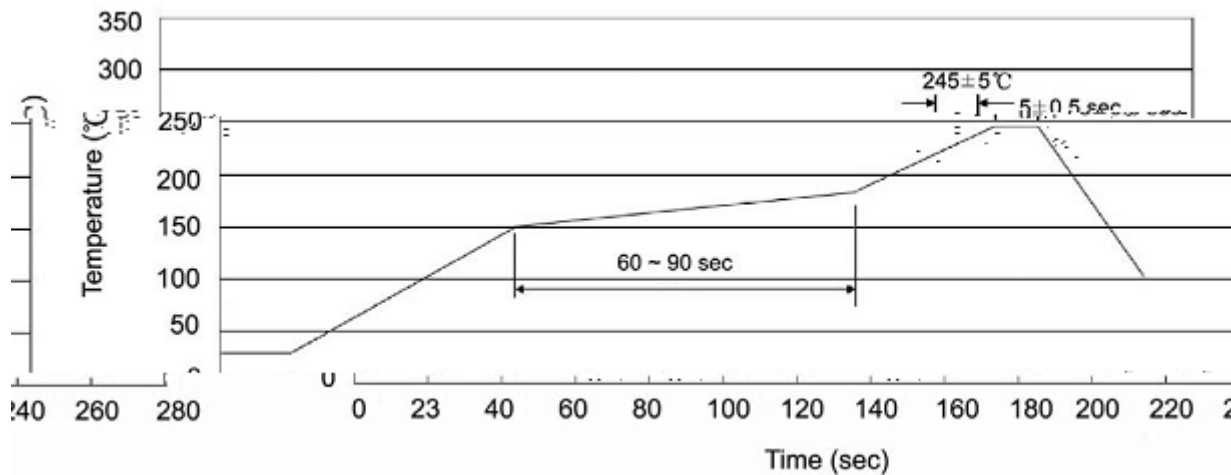
Note:

BR: Company Code

15036B: Product Type.

****: 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-263	800	1	800	5	4,000	13 ×24	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-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices