MJE200

Rev.E Mar.-2016

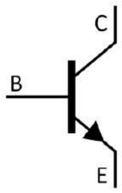
DATA SHEET

TO-126F	NPN	Silicon NPN transistor in a TO-126F Plastic Package.

- MJE210

Low collector-emitter saturation voltage, high current gain bandwidth product, Complement to MJE210.

Designed for general audio amplifier applications.



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions.

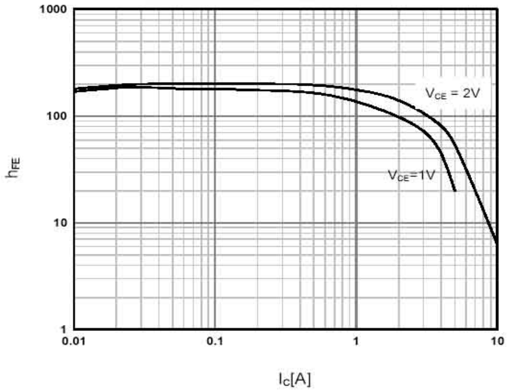
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	8.0	V
Collector Current - Continuous	I_C	5.0	A
Collector Power Dissipation	$P_C(T_C=25\ \ )$	15	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

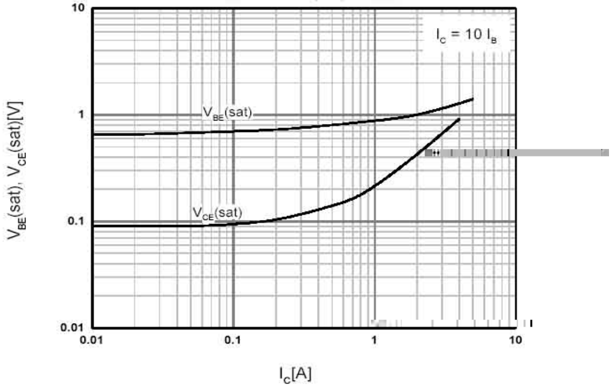
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA	I_B=0	25			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=40V	I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=8.0V	I_C=0			0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V	I_C=2.0A	45		180	
	$h_{FE(2)}$	V_{CE}=1.0V	I_C=500mA	70			
	$h_{FE(3)}$	V_{CE}=2.0V	I_C=5.0A	10			
Collector to Emitter Saturation Voltage	$V_{CE(sat)\ (1)}$	I_C=500mA	I_B=50mA			0.3	V
	$V_{CE(sat)\ (2)}$	I_C=2.0A	I_B=200mA			0.75	V
	$V_{CE(sat)\ (3)}$	I_C=5.0A	I_B=1.0A			1.8	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=5.0A	I_B=1.0A			2.5	V
Base to Emitter On Voltage	$V_{BE(on)}$	V_{CE}=1.0V	I_C=2.0A			1.6	V
Transition Frequency	f_T	V_{CE}=10V	I_C=100mA	65			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V f=1.0MHz	I_E=0			80	pF

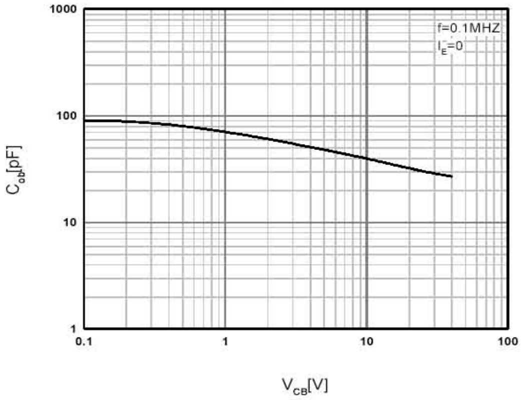
/ Electrical Characteristic Curve



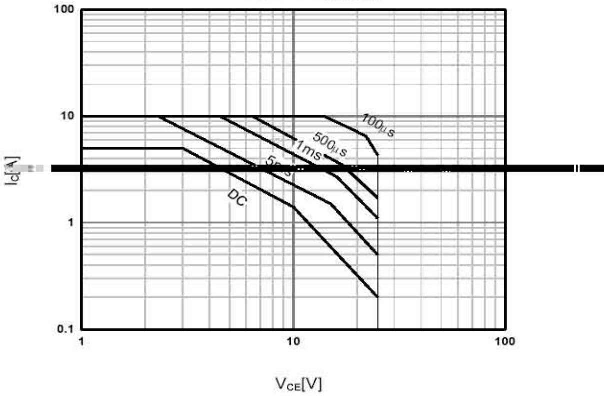
h_{FE} - I_C



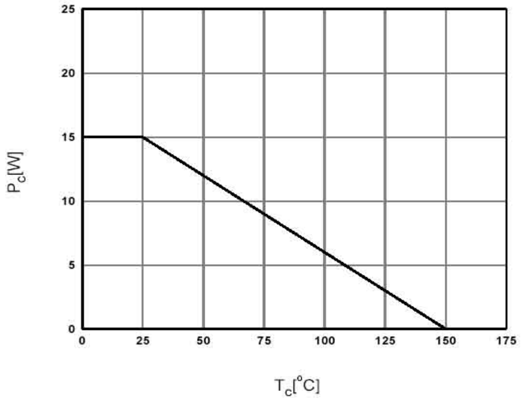
$V_{CB(sat)}$, $V_{CE(sat)}$ - I_C



C_{Ob} - V_{CB}



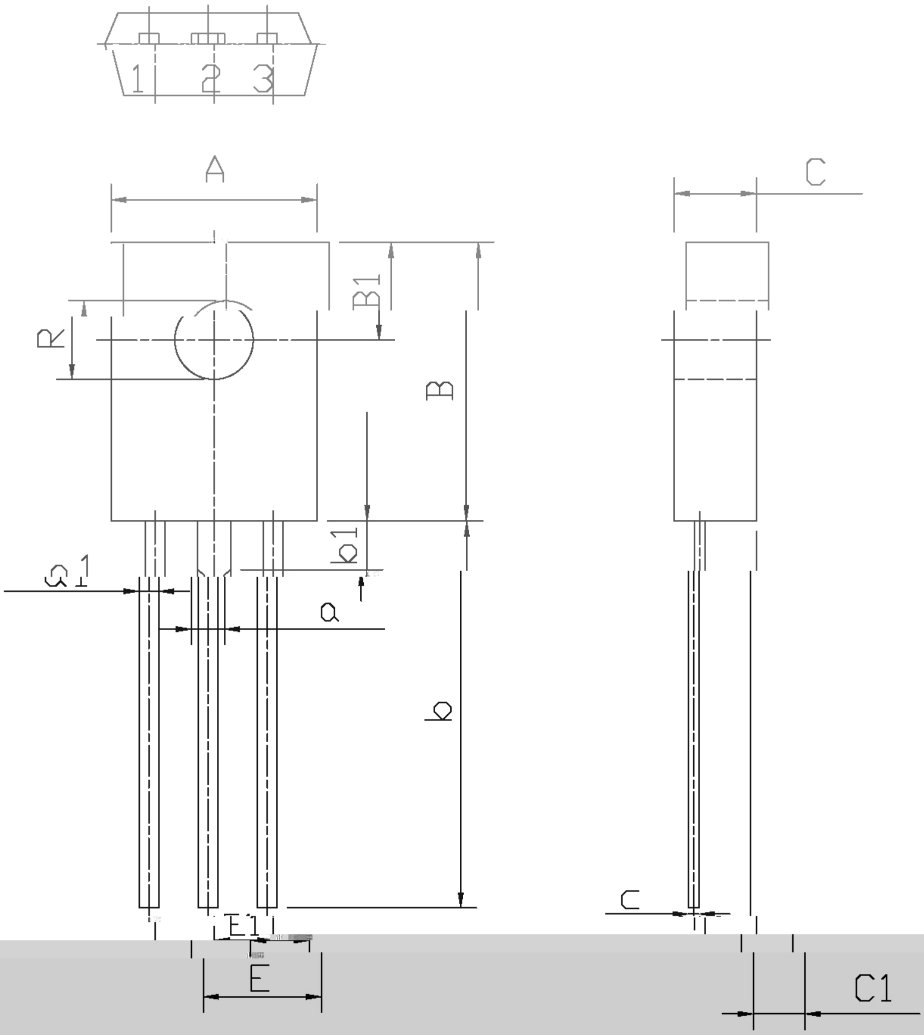
I_C - $V_{CE(sat)}$



P_C –T_C

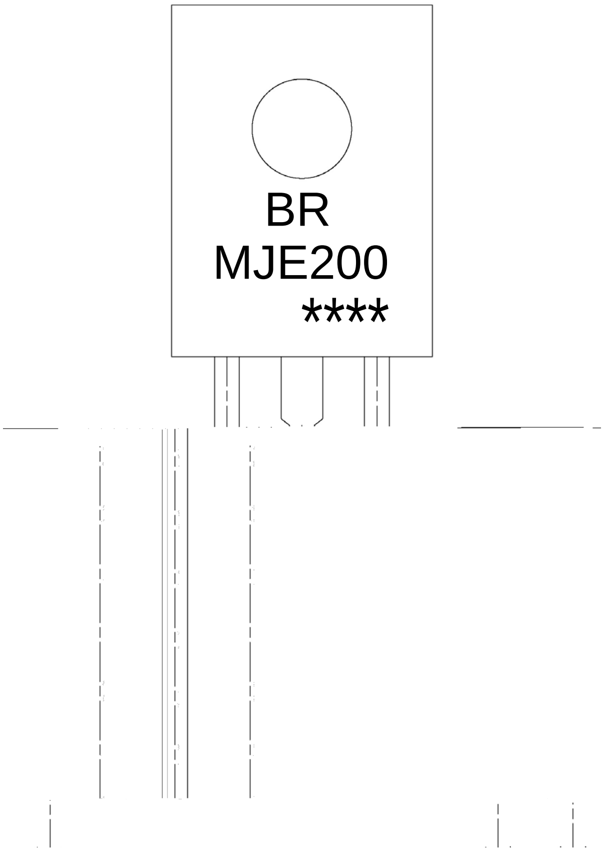
/ Package Dimensions

TO-126F 单位：mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	7.8	8.2	a1	0.66	0.86
B	10.8	11.2	E	4.4	4.8
B1	3.8	4.2	C	3.1	3.3
R	2.95	3.15	C1	1.9	2.1
b	14	16	c	0.3	0.6
b1	1.9		e	1.27	

/ Marking Instructions



BR

MJE200

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Note:

BR:	Company Code
MJE200:	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)

	Note:
1 25 150 60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2 255±5 5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3 2 10 /sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

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-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

/ 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-126/F	65	26	1,690	5	8,450	532×31×5.6	555×164×50	575×290×180

/ Notices