

Rev.A Apr.-2024

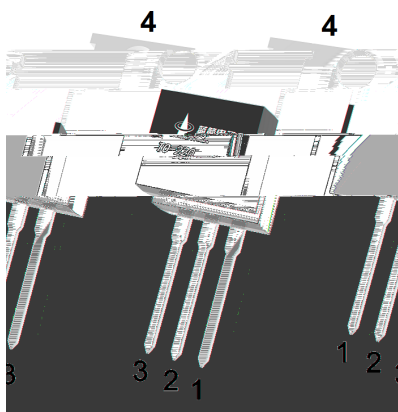
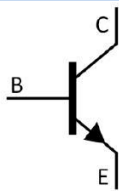
TO-220 NPN

Silicon NPN transistor in a TO-220 Plastic Package.

BRMJD45RA

Complement to BRMJD45RA, HF Product.

These power transistors can be used as general purpose power amplification and switching such as output or driver stages in applications such as switching regulators, converters and power amplifiers.



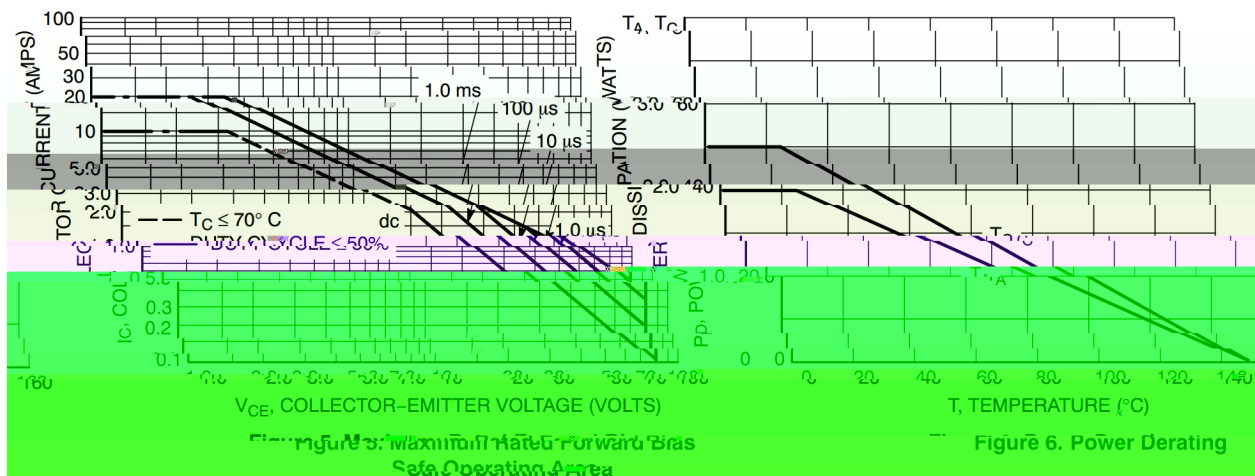
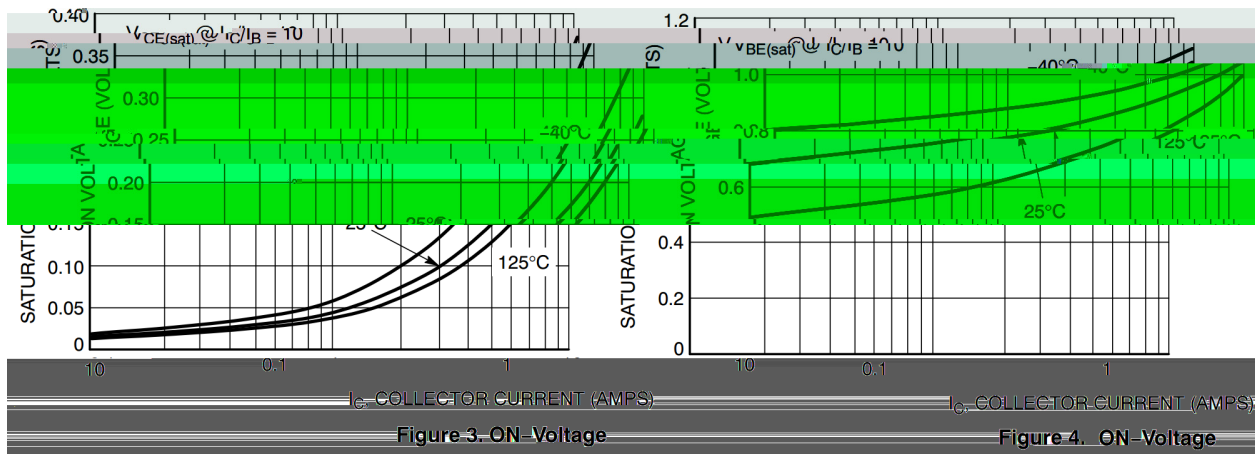
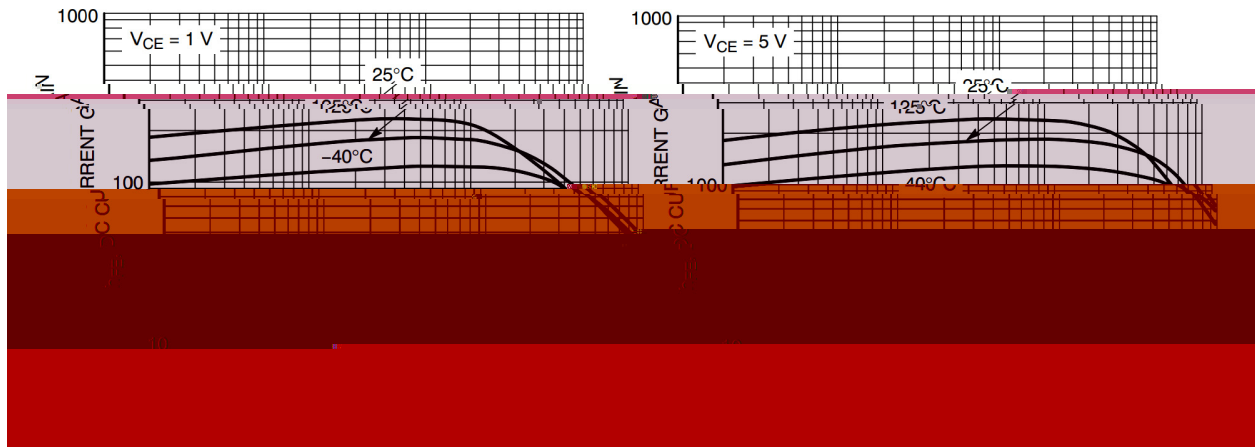
PIN1 Base PIN 2 4 Collector PIN 3 Emitter

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	10	A
Peak Collector Current	I_{CM}	20	A
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	70	W
	P_C	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	
Thermal Resistance, Junction to Ambient	R_{JA}	62.5	/W
Thermal Resistance, Junction to Case	R_{JC}	1.8	/W

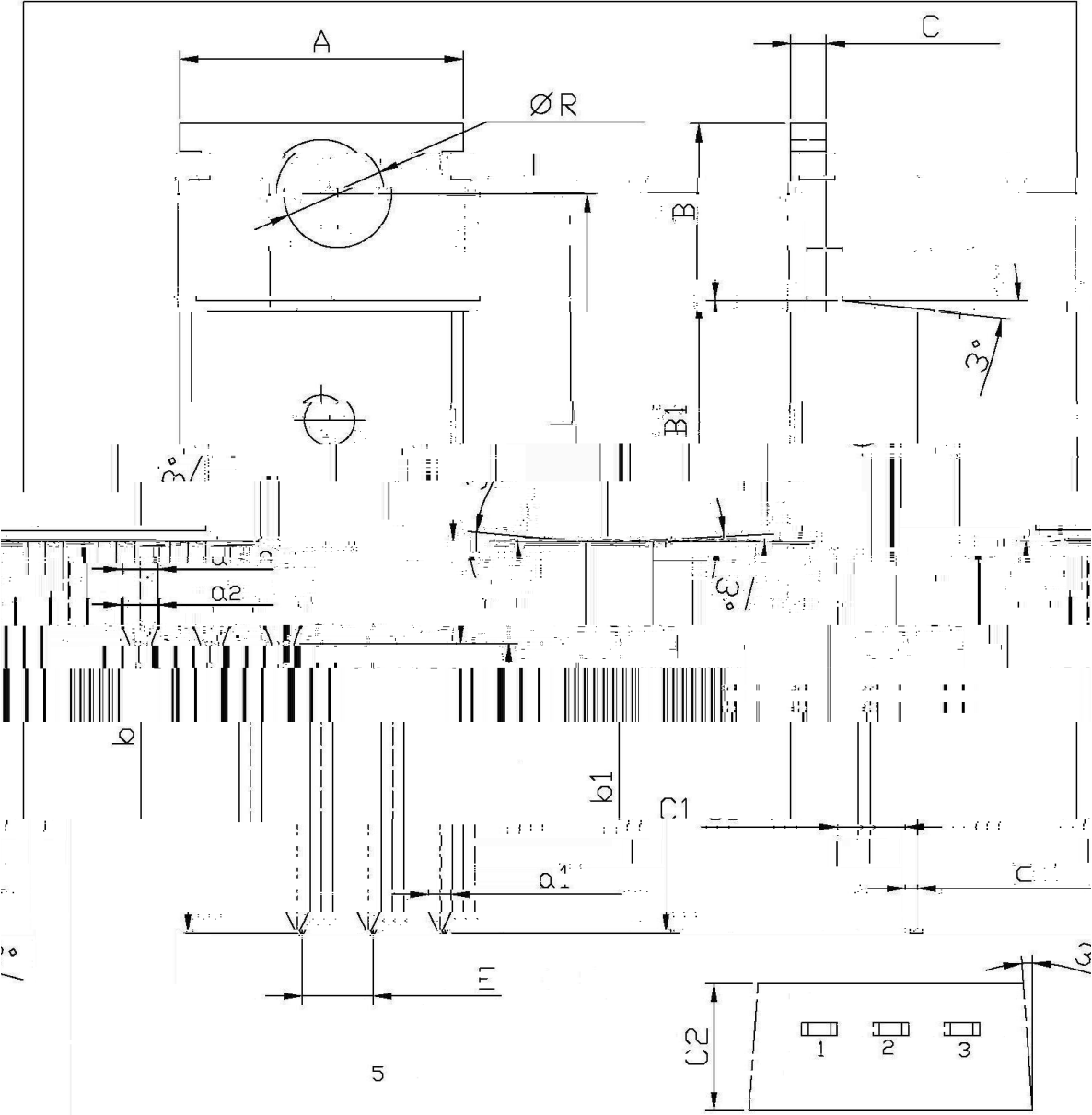
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=30\text{mA}$ $I_B=0$	80			V
Collector Cut-Off Current	I_{CES}	$V_{CE}=80\text{V}$ $I_B=0$			10	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			10	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0\text{V}$ $I_C=2.0\text{A}$	60		250	
	$h_{FE(2)}$	$V_{CE}=1.0\text{V}$ $I_C=4.0\text{A}$	40			

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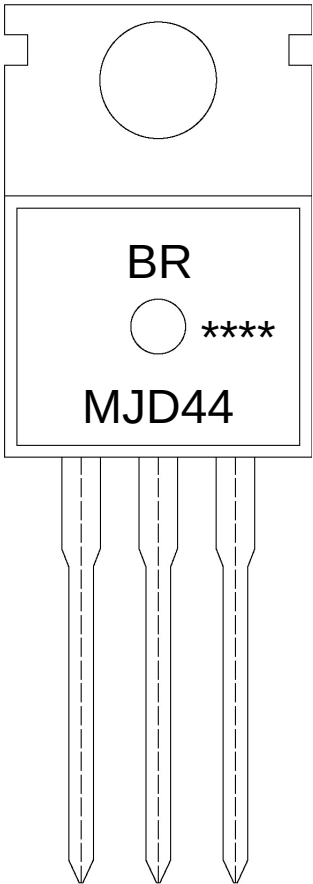


T□-220

单位: mm



Dimensions In Millimeters				Dimensions In Millimeters			
Max	Symbol	Min		Max	Symbol	Min	
1.4	A	9.8		10.2	C	1.2	
6.7	R	3.56		3.64	B	6.3	
9.4	B1	15.7		16.1	B1	9.0	
2.6	C1	12.6		13.6	C1	2.2	



BR

MJD44

Note:

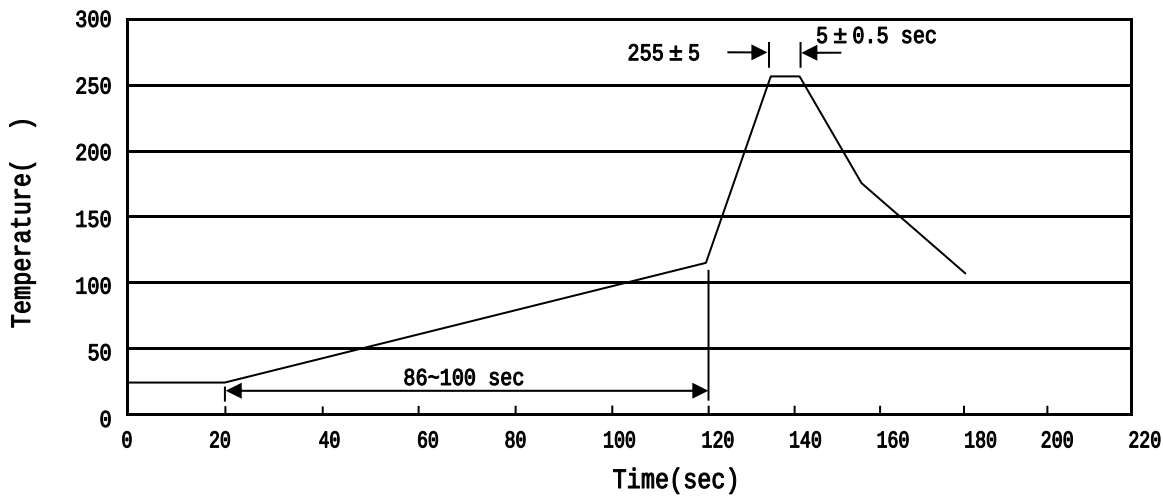
- BR:

****:

MJD44:
- Company Code

Lot No. Code, code change with Lot No

Product Type Code



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.

270±5

10±1 sec.

Temp.:270±5

Time:10±1 sec

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	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-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180