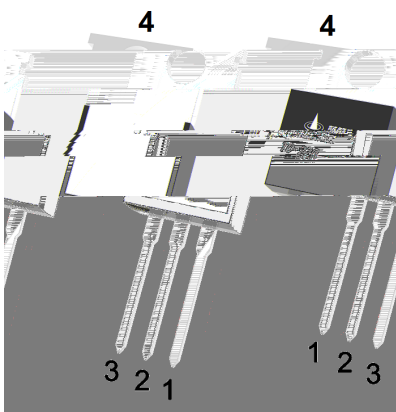
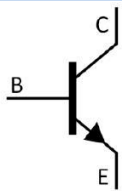


Rev.A Apr.-2024

Silicon NPN transistor in a TO-220 Plastic Package.

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.

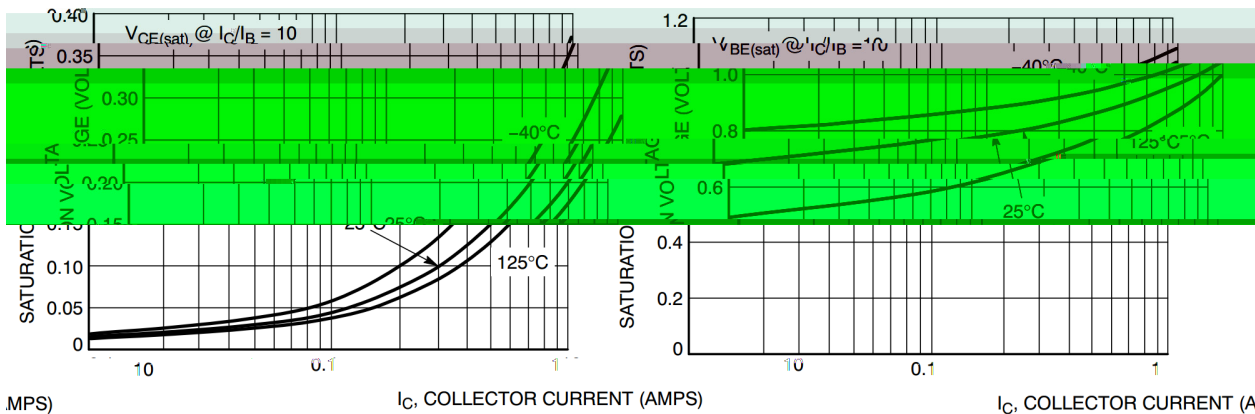
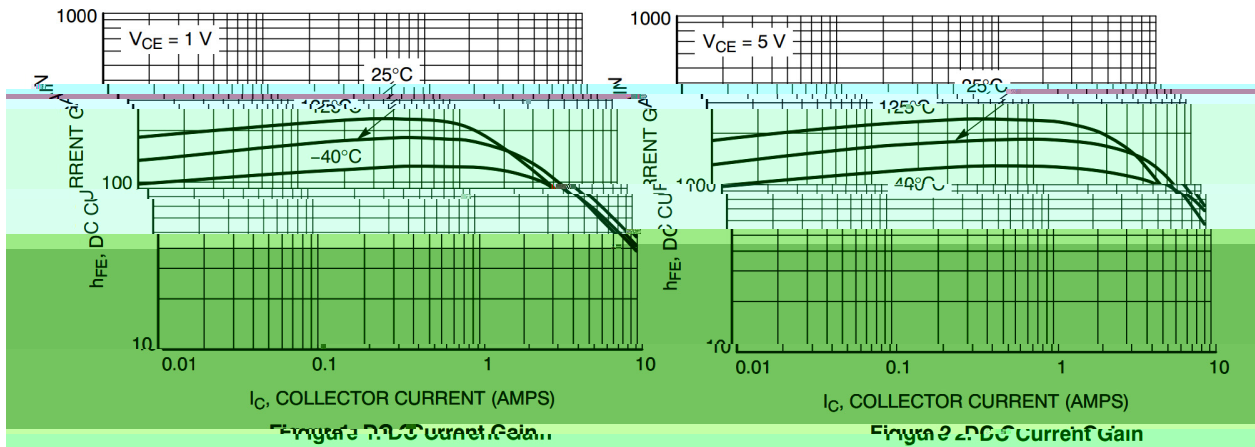


PIN1 Base PIN 2 4 Collector PIN 3 Emitter

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

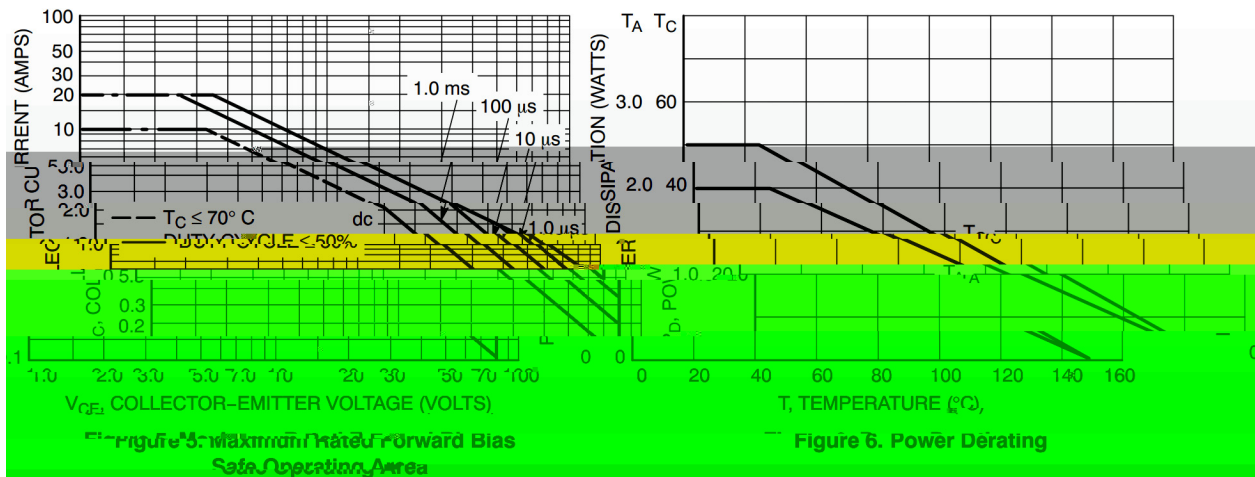
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=30\text{mA}$ $I_B=0$	80			V
Collector Cut-Off Current	I_{CES}	$V_{CE}=80\text{V}$ $I_B=0$			10	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			10	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0\text{V}$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



MPS
e

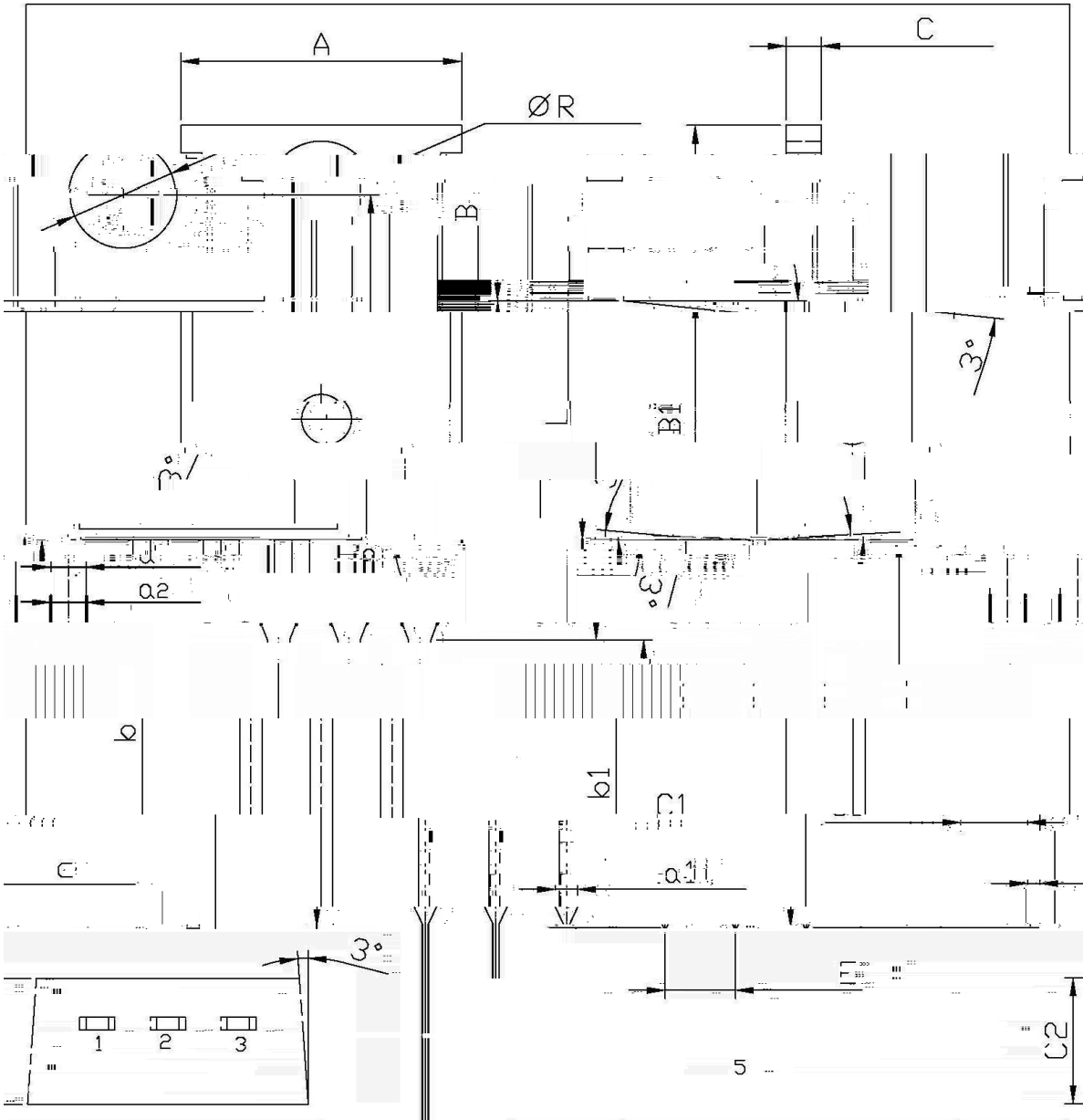
Figure 3. ON-Voltage

Figure 4. ON-Voltage

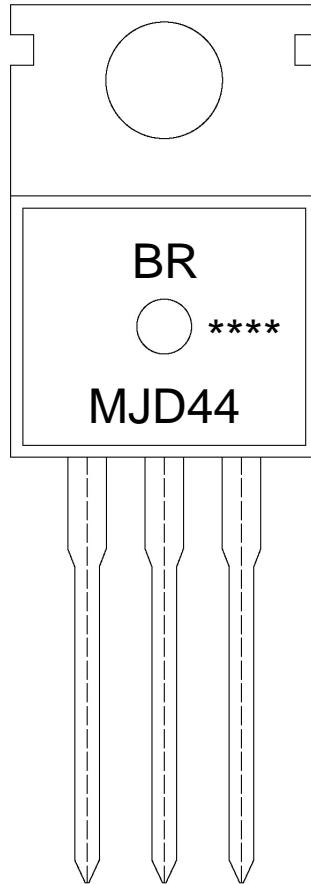


TO-220

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	C	12	14
R	3.56	3.64	B	6.3	6.7
l	15.7	16.1	B1	9.0	9.4
b	12.6	13.6	C1	2.2	2.6



BR

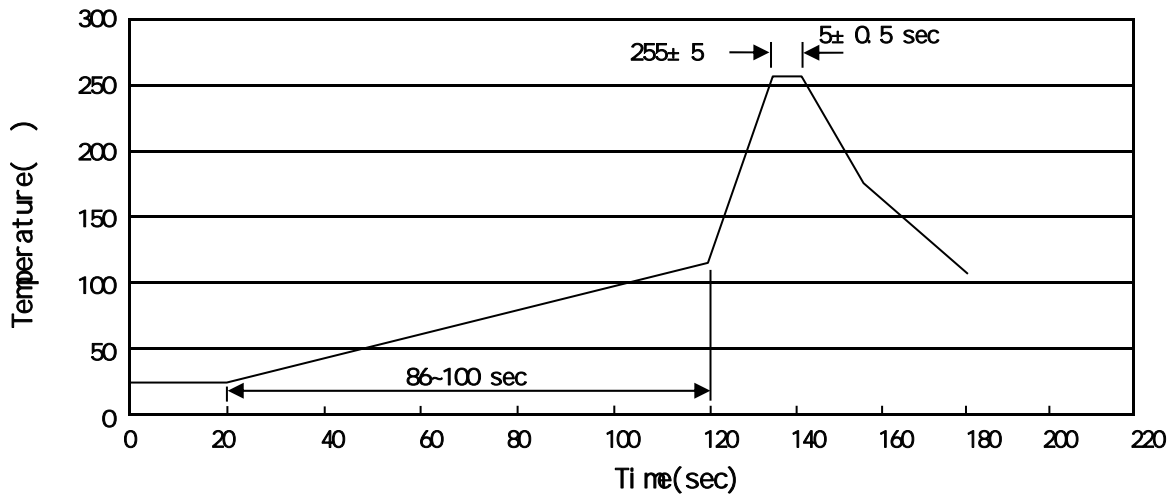
MJD44

Note:

BR: Company Code

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

MJD44: 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	135x190	237x172x102	560x245x195

/ 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	532x31.4x5.5	555x164x50	575x290x180