

BRMJB42CQ

Rev.A Oct.-2023

/ Descriptions

TO-263 PNP

Silicon PNP transistor in a TO-263 Plastic Package.

/ Features

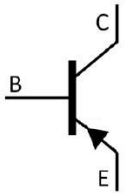
BRMJB41CQ AEC-Q101

Complement to BRMJB41CQ, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

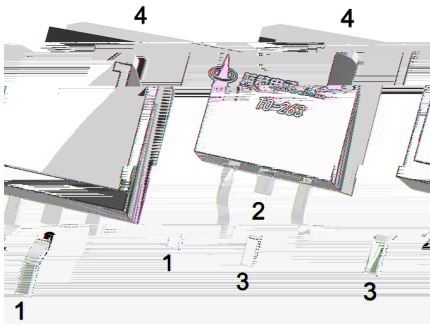
/ Applications

Medium power linear switching applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

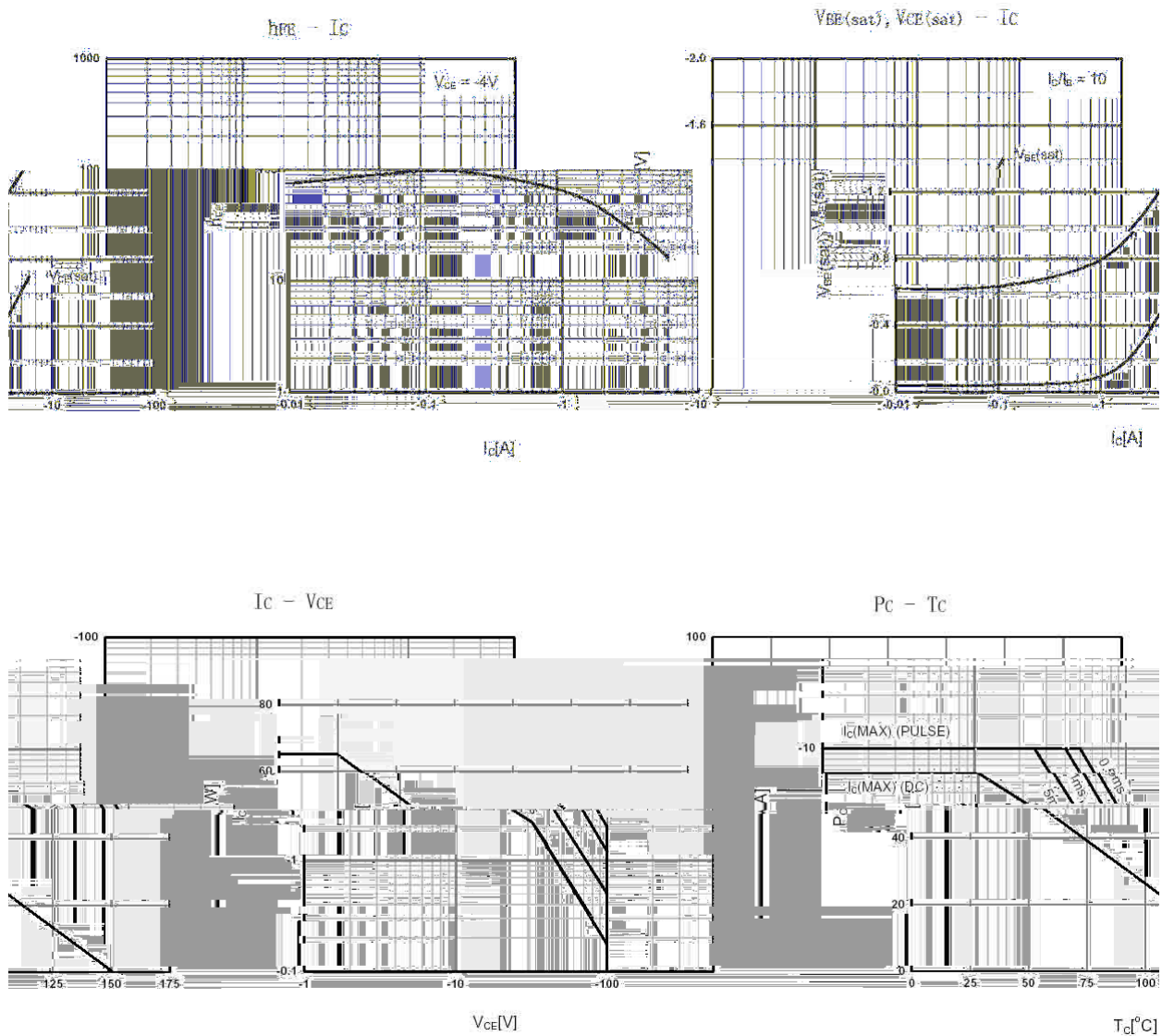
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	-100	V
Collector to Emitter Voltage	V _{CEO}	-100	V
Emitter to Base Voltage	V _{EBO}	-5.0	V
Collector Current - Continuous	I _C	-6.0	A
Peak Collector Current	I _{CP}	-10	A
Base Current - Continuous	I _B	-2.0	A
Power Dissipation	P _D	2.0	W
Power Dissipation	P _D (T _C =25)	65	W
Junction Temperature	T _j	150	
Storage Temperature Range	T _{sag}	-55 150	

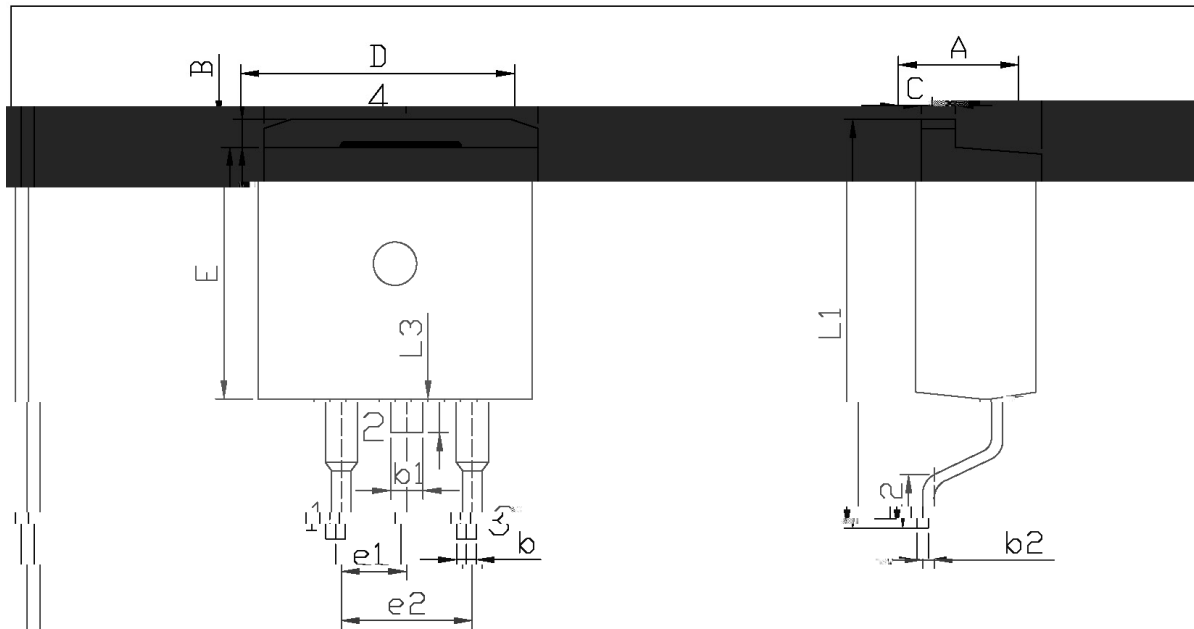
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =-30mA I _B =0	-100			V
Collector Cut-Off Current	I _{CEO}	V _{CE} =-60V I _B =0			-0.7	mA
Collector Cut-Off Current	I _{CES}	V _{CE} =-100V V _{EB} =0			-400	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-5.0V I _C =0			-1.0	mA
DC Current Gain	h _{FE(1)}	V _{CE} =-4.0V I _C =-3.0A	15		75	
	h _{FE(2)}	V _{CE} =-4.0V I _C =-0.3A	30			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =-6.0A I _B =-0.6A			-1.5	V
Base to Emitter Voltage	V _{BE}	I _C =-6.0A V _{CE} =-4.0V			-2.0	V
Transition Frequency	f _T	V _{CE} =-10V I _C =-500mA	3.0			MHz

/ Electrical Characteristic Curve



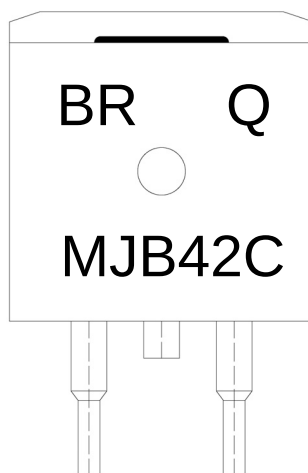
/ Package Dimensions



单位: mm								
S			Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeter	
				Min	Max		Min	Max
				A	4.30		4.70	E
			B	1.00	1.40	e1	2.34	2.74
			b	0.70	0.90	e2	4.88	5.28
								</



/ Marking Instructions



BR

Q

MJB42C

Note:

BR: Company Code

Q: Automobile halogen-free product Code

MJB42C: Product Type

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 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

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL