/ Descriptions

TO-263 PNP

Silicon PNP transistor in a TO-263 Plastic Package.

/ Features

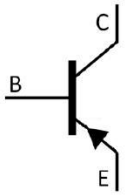
BRMJB41CQ AEC-Q101

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

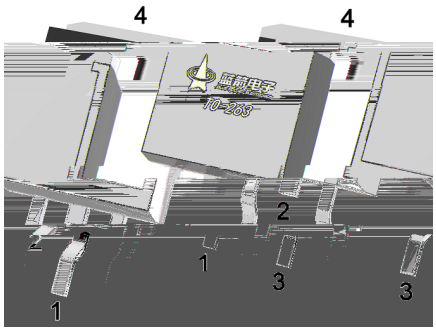
/ Applications

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.

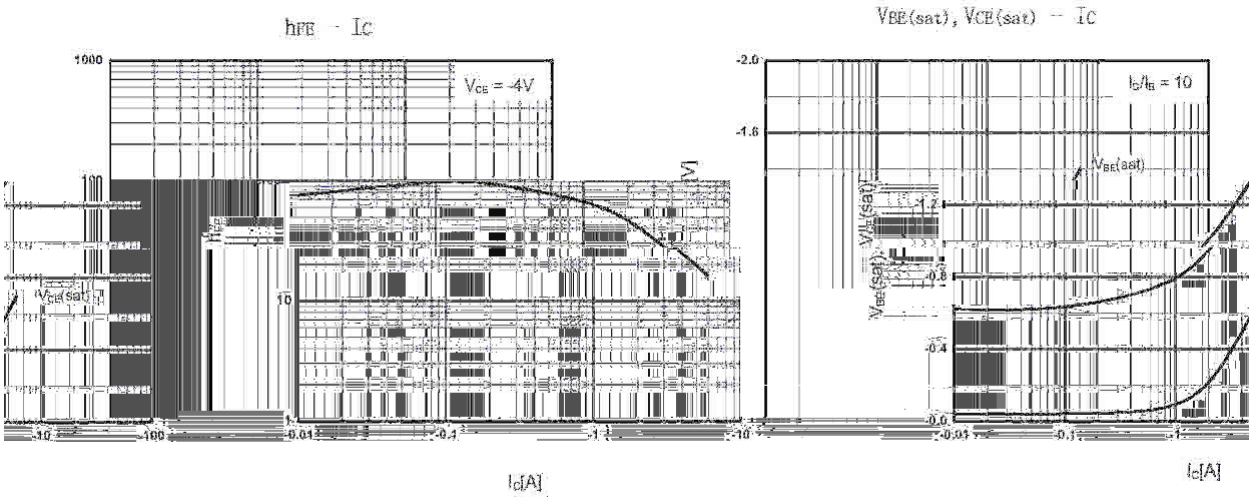
/ Absolute Maximum Ratings(Ta=25)

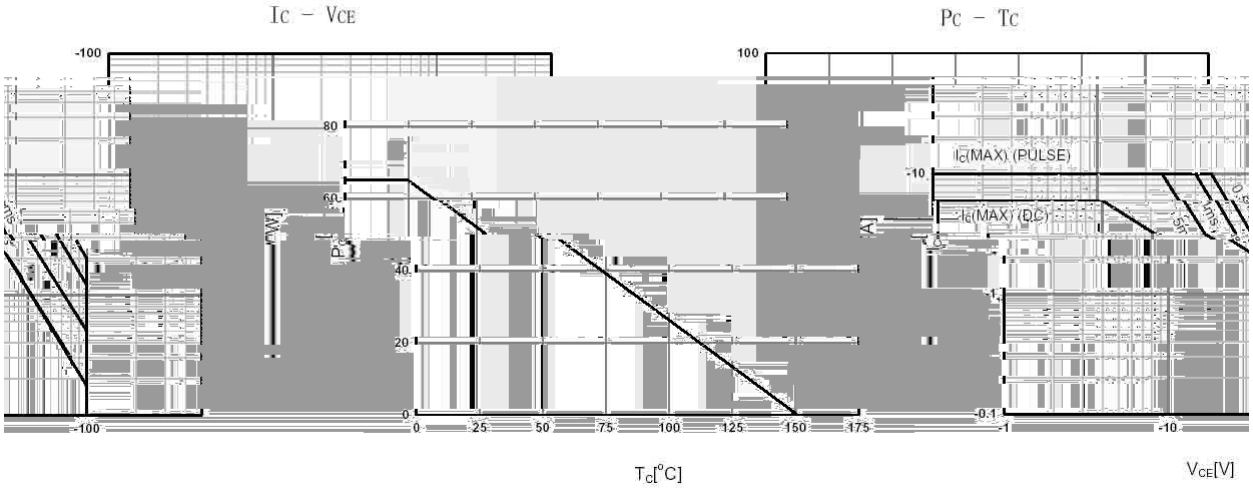
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-100	V
Collector to Emitter Voltage	V_{CEO}	-100	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-6.0	A
Peak Collector Current	I_{CP}	-10	A
Base Current - Continuous	I_B	-2.0	A
Power Dissipation	P_D	2.0	W
Power Dissipation	P_D(Tc=25)	65	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{sag}	-55 150	

/ Electrical Characteristics(Ta=25)

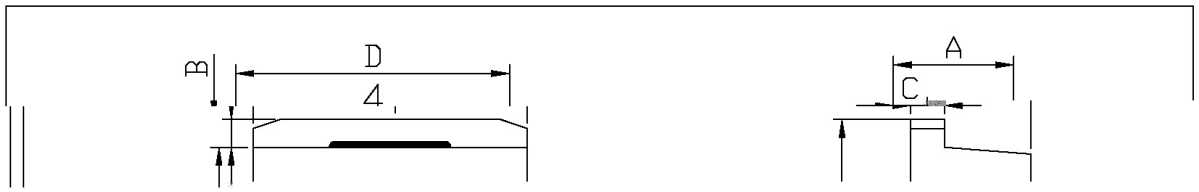
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-30mA I_B=0	-100			V
Collector Cut-Off Current	I_{CEO}	V_{CE}=-60V I_B=0			-0.7	mA
Collector Cut-Off Current	I_{CES}	V_{CE}=-100V V_{EB}=0			-400	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-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





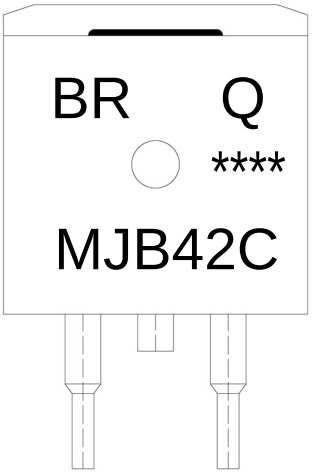
/ Package Dimensions



Symbol	Min	Max	Symbol	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	16.0
b2	0.40	0.60	L2	2.24	2.84
C	1.20	1.40	L3	1.20	1.60
D	9.80	10.20			

TO-263

/ Marking Instructions



BR

Q

MJB42C

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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