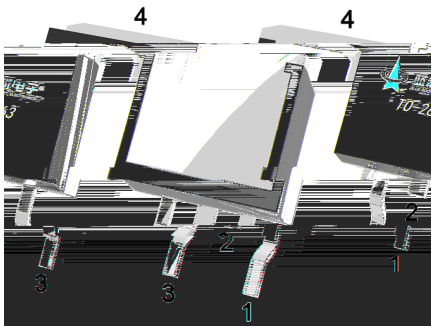
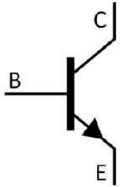


Rev.A Qct.-2023

Silicon NPN transistor in a TO-263 Plastic Package.

Complement to BRMJB42CQ, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

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

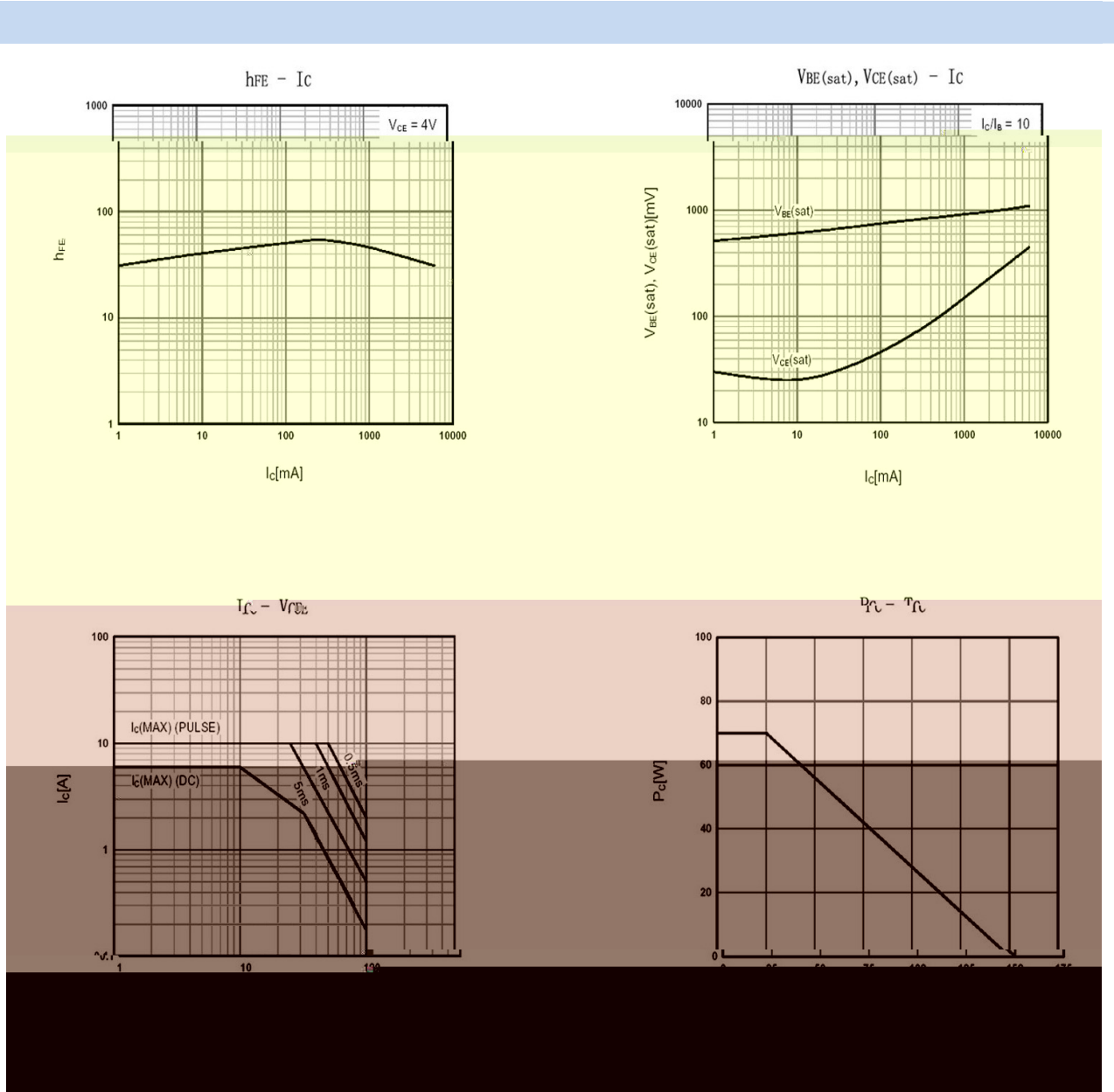


PIN1 Base PIN 2 4 Collector PIN 3 Emitter

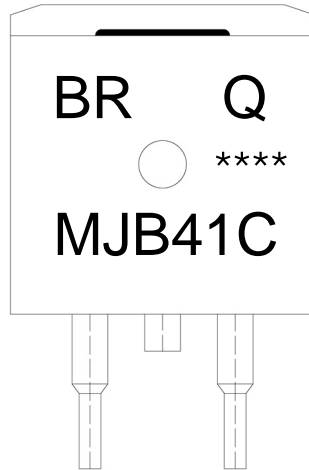
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	6	A
Peak Collector Current	I_{CP}	10	A
Base Current - Continuous	I_B	2	A
Power Dissipation	P_D	2	W
Power Dissipation	$P_D(T_C=25^\circ C)$	65	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{sag}	-55 150	

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	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5V$ $I_C=0$			1	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4V$ $I_C=3A$	15		75	
	$h_{FE(2)}$	$V_{CE}=4V$ $I_C=0.3A$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6A$ $I_B=0.6A$			1.5	V
Base to Emitter Voltage	V_{BE}	$I_C=6A$ $V_{CE}=4V$			2	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=500mA$	3			MHz







Q

Note:

BR: Company Code

Q: Automobile halogen-free product Code

MJB41C: 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. |

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

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
TO-263	800	1	800	6	4,800	13 x24	360x360x50	380x335x366

/ 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-263	50	20	1,000	5	5,000	532x33x7.0	555x164x50	575x290x180