

**BR2SK3018WQ**

## / Absolute Maximum Ratings(Ta=25 )

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V <sub>DSS</sub>	30	V
Gate-Source Voltage	V <sub>GSS</sub>	±20	V
Drain Current – Continuous	I <sub>D</sub>	100	mA
Drain Current– Pulsed	I <sub>DP</sub> <sup>*1</sup>	200	mA
Reverse drain current–Continuous	I <sub>DR</sub>	100	mA
Reverse drain current– Pulsed	I <sub>DRP</sub> <sup>*1</sup>	200	mA
Total power dissipation (T <sub>c</sub> =25 )	P <sub>D</sub> <sup>*2</sup>	200	mW
Channel Temperature	T <sub>ch</sub>	150	V
Storage Temperature Range	T <sub>stg</sub>	-55 150	

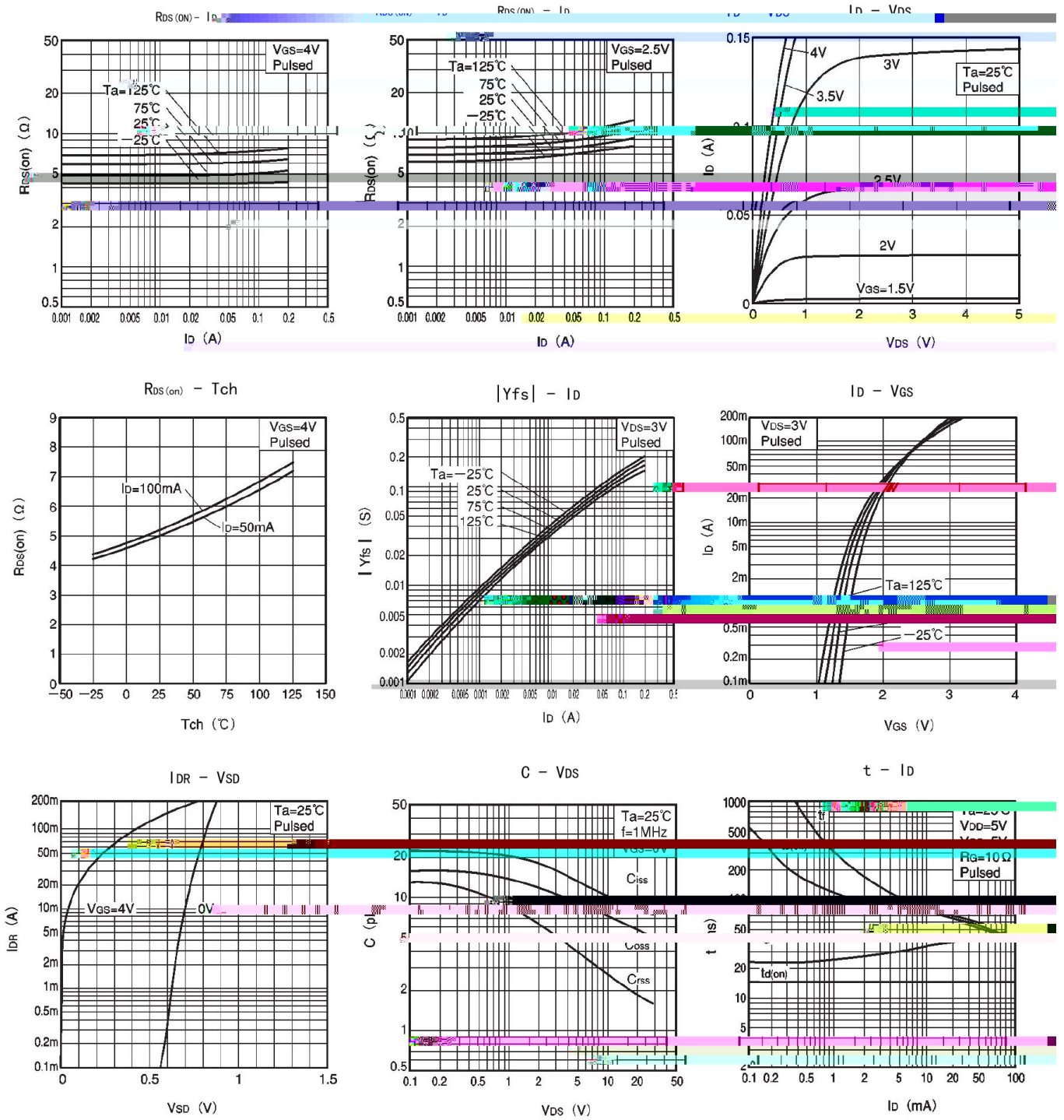
\*1:Pw 10μs, Duty cycle 50%

\*2:With each pin mounted on the recommended lands

## / Electrical Characteristics(Ta=25 )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> =0V I <sub>D</sub> =10μA	30			V
Gate threshold voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> =3.0V I <sub>D</sub> =100μA	0.8		1.5	V
Static Drain–Source On–Resistance	R <sub>DS(on)1</sub>	V <sub>GS</sub> =4.0V I <sub>D</sub> =10mA		5.0	8.0	
	R <sub>DS(on)2</sub>	V <sub>GS</sub> =2.5V I <sub>D</sub> =1.0mA		7.0	13	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =30V V <sub>GS</sub> =0V			1.0	μA
Gate–Body Leakage.	I <sub>GSS</sub>	V <sub>GS</sub> =±20V V <sub>DS</sub> =0V			±1	μA
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =3V I <sub>D</sub> =10mA	20			mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =5.0V V <sub>GS</sub> =0V f=1.0MHz		13		pF
Output Capacitance	C <sub>oss</sub>			9.0		pF
Reverse Transfer Capacitance	C <sub>rss</sub>			4.0		pF
Turn–On Delay Time	t <sub>d(on)</sub>	I <sub>D</sub> =10mA V <sub>DD</sub> 5.0V V <sub>GS</sub> =5.0V R <sub>L</sub> =500 R <sub>GS</sub> =10		15		ns
Turn–On Rise Time	t <sub>r</sub>			35		ns
Turn–Off Delay Time	t <sub>d(off)</sub>			80		ns
Turn–Off Fall Time	t <sub>f</sub>			80		ns

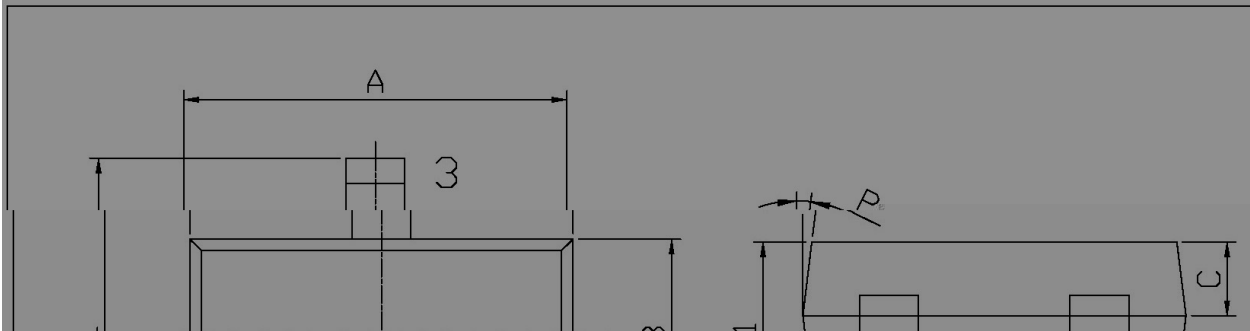
**/ Electrical Characteristic Curve**



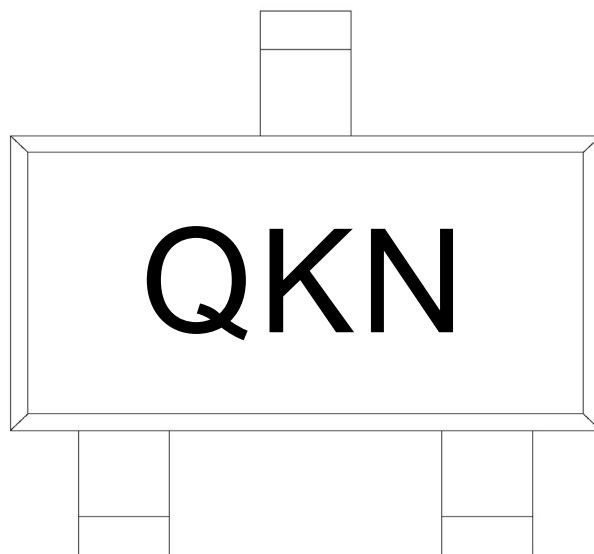
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



Q

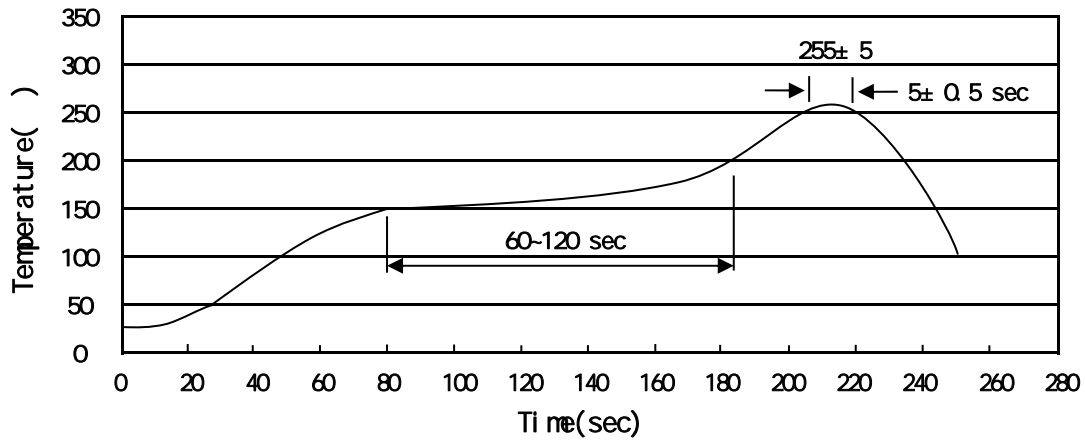
KN

Note:

Q: Automobile halogen-free product Code

KN: Package type

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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

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-323	3,000	10	30,000	6	180,000	7 x8	180x120x180	390x385x205

/ Notices