| | | | | | |
|---|---|---|---|---|---|
| D | 2018-7 | | | | |
| E | 2018-10-16 | | | | |
| F | 2019-3-13 | 2 | | | |
| G | 2020-1-8 | 2 3 6 | $V_{GS(th)}$ 由原来的 改为 ;$V_{GSS}$ 由原来的±20 改为±12V；$I_{GSS}$ 的条件由原来的 $V_{GS}$=±20V 改为 $V_{GS}$=±12V； | | |
| A | 2020-10-10 | All | BRCS4606SC<br>BRCS4606HSC | | |
| B | 2022-3-21 | 1 | 特征栏 $I_D$=6.8A 改为 6.9A<br>$I_D$=-5.8A 改为-6.0A | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rev.B Mar.-2022

SOP-8 MOS

Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

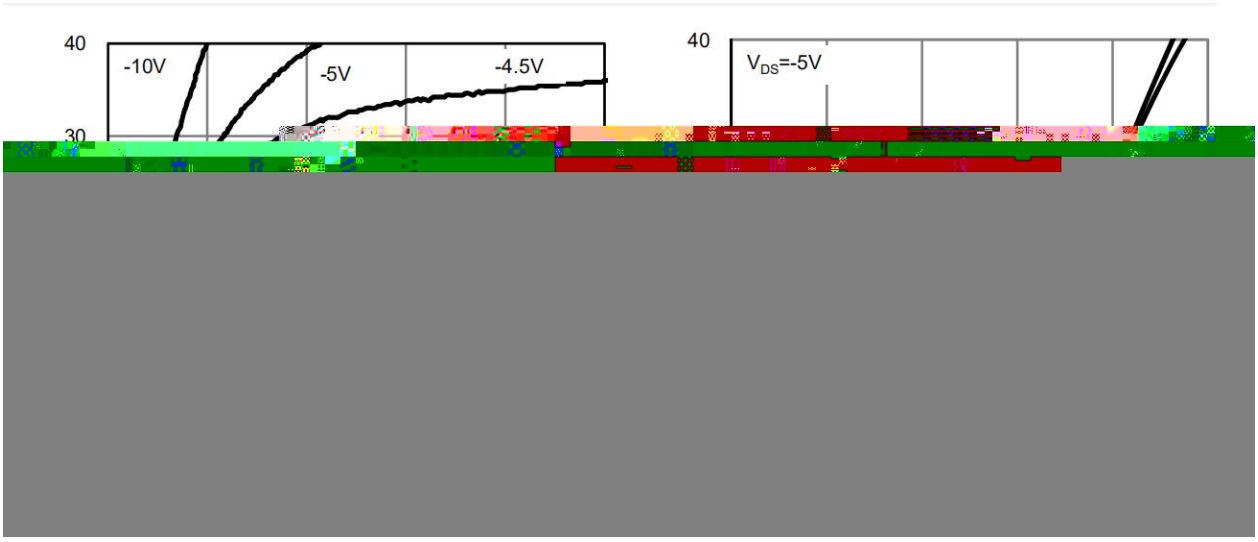
| N-channel | P-channel |
| --- | --- |
| $V_{DS}$(V)=30V | $V_{DS}$(V)=-30V |
| $I_D$=6.9A | $I_D$=-6.0A |
| $R_{DS(ON)}$<32m Ω ($V_{GS}$=10V) | $R_{DS(ON)}$<70m Ω ($V_{GS}$=-10V) |
| $R_{DS(ON)}$<40m Ω ($V_{GS}$=4.5V) | $R_{DS(ON)}$<90m Ω ($V_{GS}$=-4.5V) |

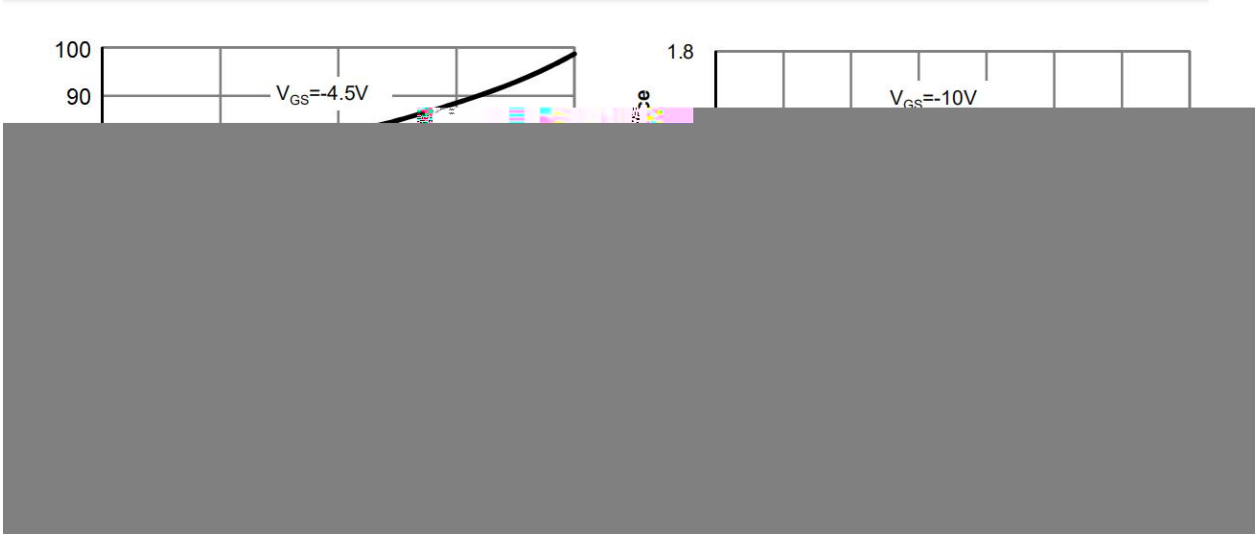
Rev.B Mar.-a

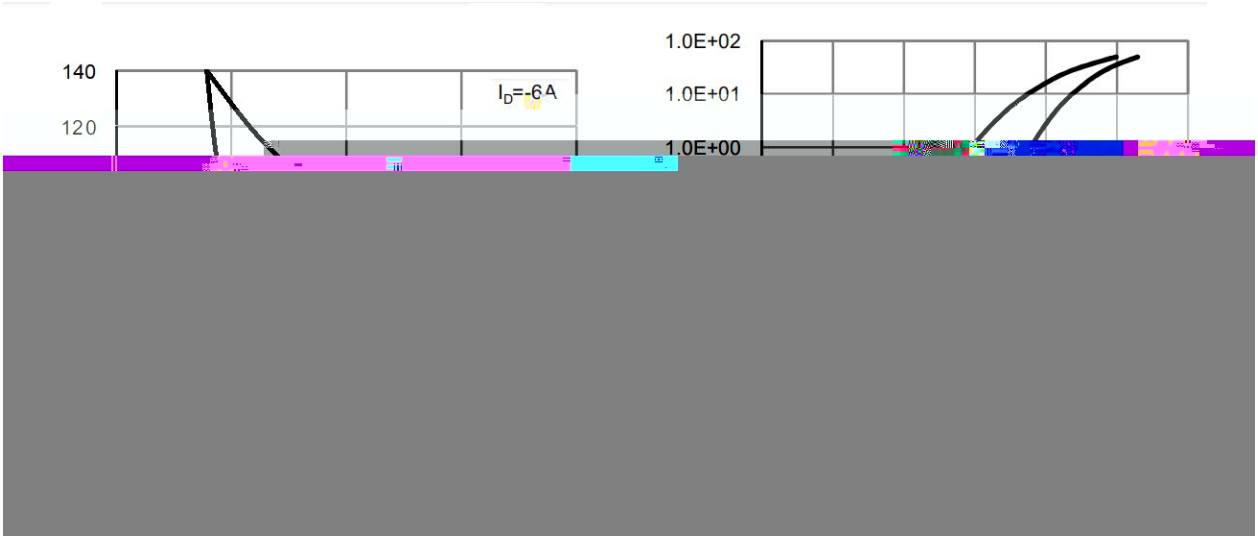
Paramet/ n

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Drain-Source Breakdown Voltage | $BV_{DSS}$ | $V_{GS}$=0V $I_D$=-250μA | -30 | -33.8 | | V |
| Zero Gate Voltage Drain Current | $I_{DSS}$ | $V_{DS}$=-24V $V_{GS}$=0V | | | -1.0 | μA |
| | | $V_{DS}$=-24V $V_{GS}$=0V $T_J$=55℃ | | | -5.0 | μA |
| Gate-Body leakage current | $I_{GSS}$ | $V_{GS}$=±20V $V_{DS}$=0V | | | ±100 | nA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}$=$V_{GS}$ $I_D$=-250μA | -1.3 | -1.85 | -2.4 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}$=-10V $I_D$=-6.0A | | 50.3 | 70 | mΩ |
| | | $V_{GS}$=-4.5V $I_D$=-5.0A | | 79.4 | 90 | mΩ |
| Diode Forward Voltage | $V_{SD}$ | $V_{GS}$=0V $I_S$=-1.0A | | -0.81 | -1.0 | V |
| Input Capacitance | $C_{iss}$ | $V_{DS}$=-25V $V_{GS}$=0V f=1.0MHz | | 465 | | pF |
| Output Capacitance | $C_{oss}$ | | | 150 | | pF |
| Reverse Transfer Capacitance | $C_{rss}$ | | | 40 | | pF |
| Gate resistance | $R_g$ | $V_{DS}$=0V $V_{GS}$=0V f=1.0MHz | | 5.5 | | Ω |
| Total Gate Charge(10V) | $Q_g$ | $V_{GS}$≠g | | | | |

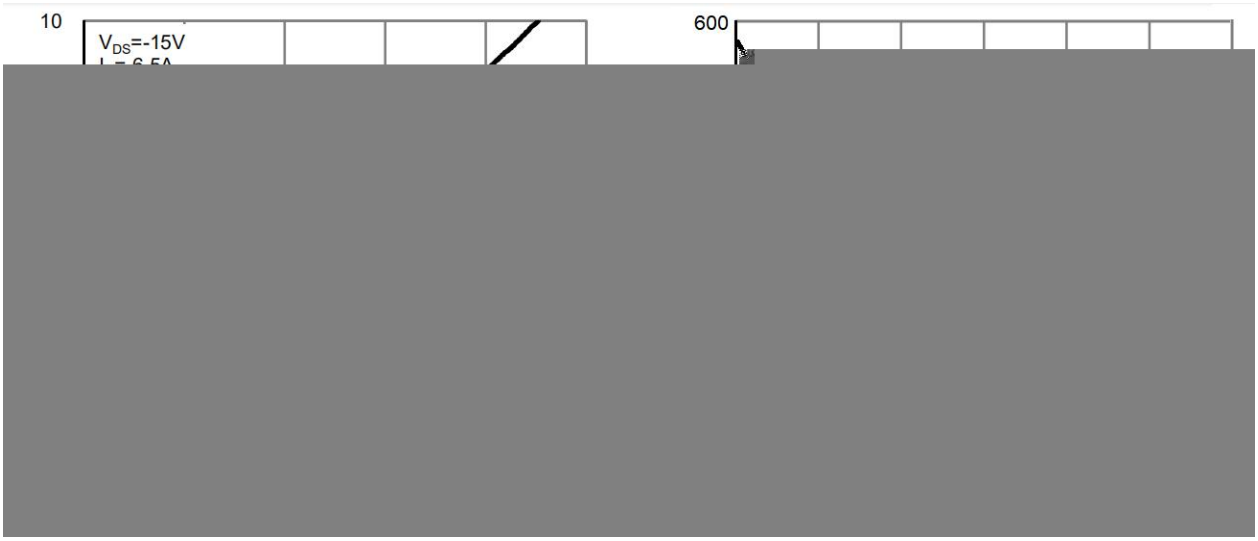
P–

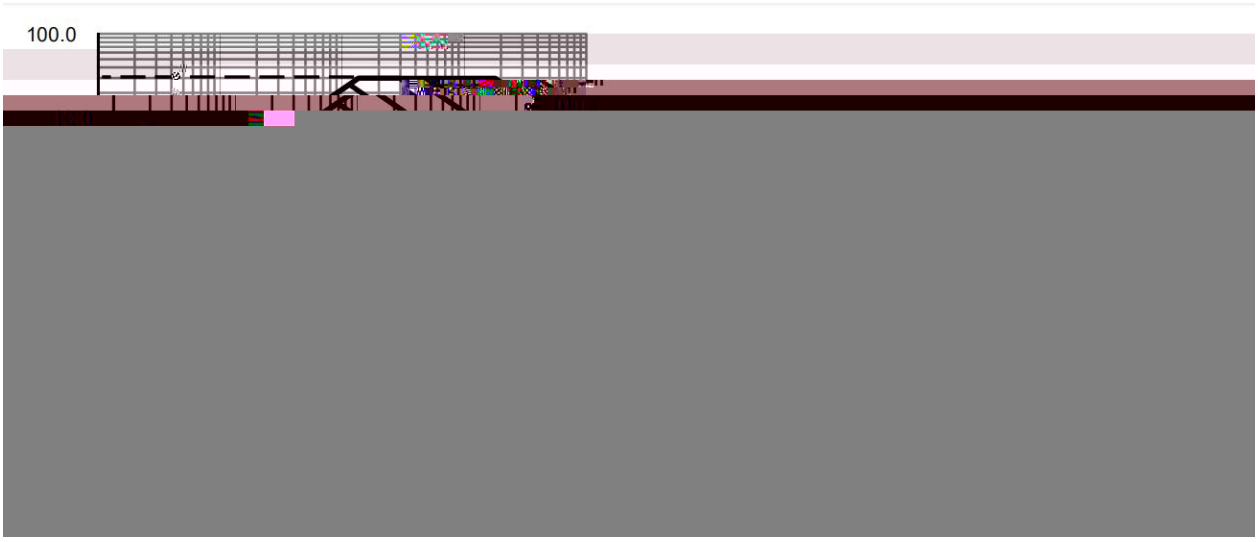

40
-10V
-5V
-4.5V
30
40
$V_{DS}$=-5V

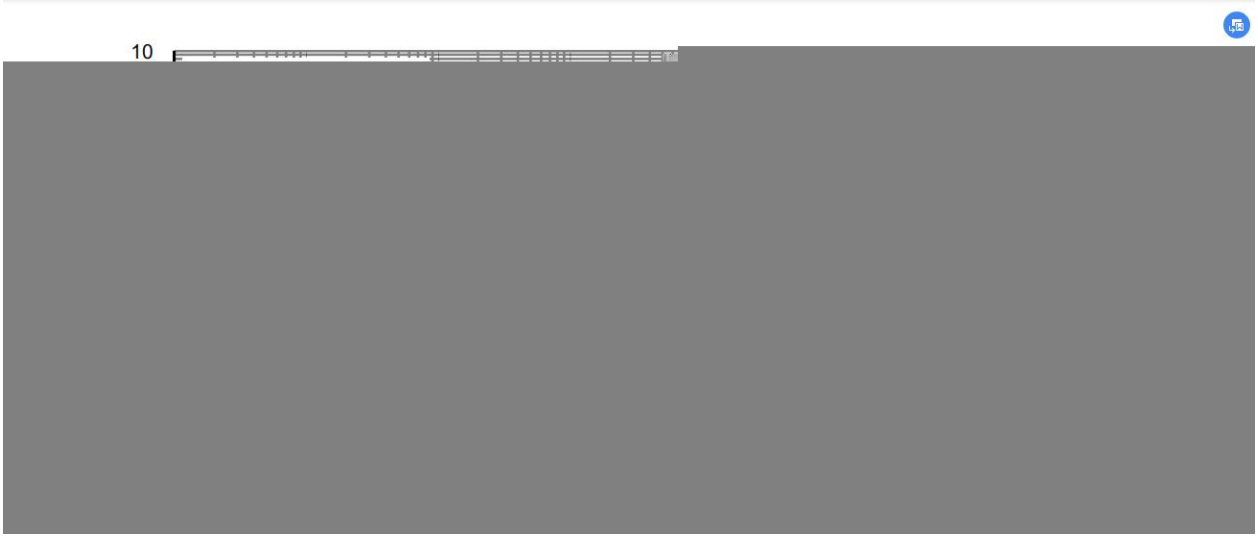

100
90
$V_{GS}$=-4.5V
1.8
$V_{GS}$=-10V

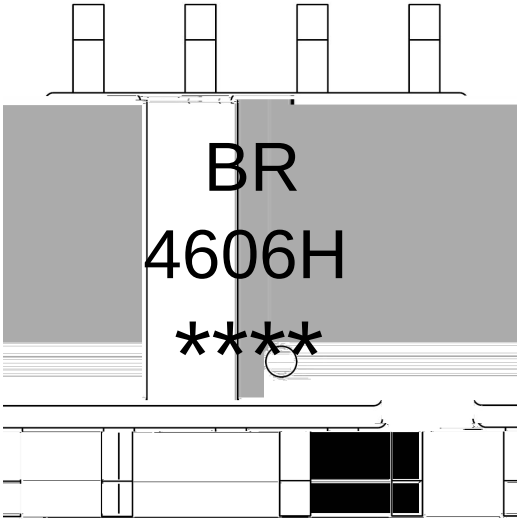

140
120
$I_D$=-6A
1.0E+02
1.0E+01
1.0E+00

P–






BR

4606H

****

Note:

| | |
|---|---|
| BR: | Company Code. |
| 4606H: | Product Type. |
| ****: | Lot No. Code, code change with Lot No. |

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




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | Note: | |
| 1 | | 150 | 180 | | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | | 245±5 | | | | 5±0.5sec; | 2.Peak Temp.:245±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 |