



EET



# BRCS4606HSC

Rev.B Mar.-2022



DATA SHEET

SOP-8

MOS

Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

N-channel

$V_{DS}(V)=30V$

$I_D=6.9A$

$R_{DS(ON)}<32m\ \Omega$  ( $V_{GS}=10V$ )

$R_{DS(ON)}<40m\ \Omega$  ( $V_{GS}=4.5V$ )

P-channel

$V_{DS}(V)=-30V$

$I_D=-6.0A$

$R_{DS(ON)}<70m\ \Omega$  ( $V_{GS}=-10V$ )

$R_{DS(ON)}<90m\ \Omega$  ( $V_{GS}=-4.5V$ )

**BRCS4606HSC**

Rev.B Mar.-a



Paramet/



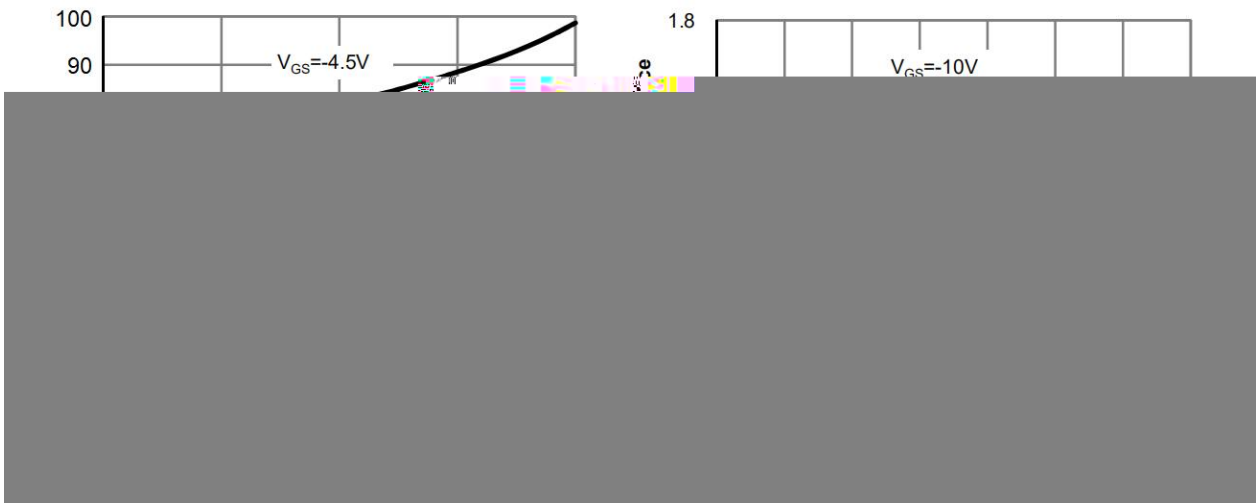
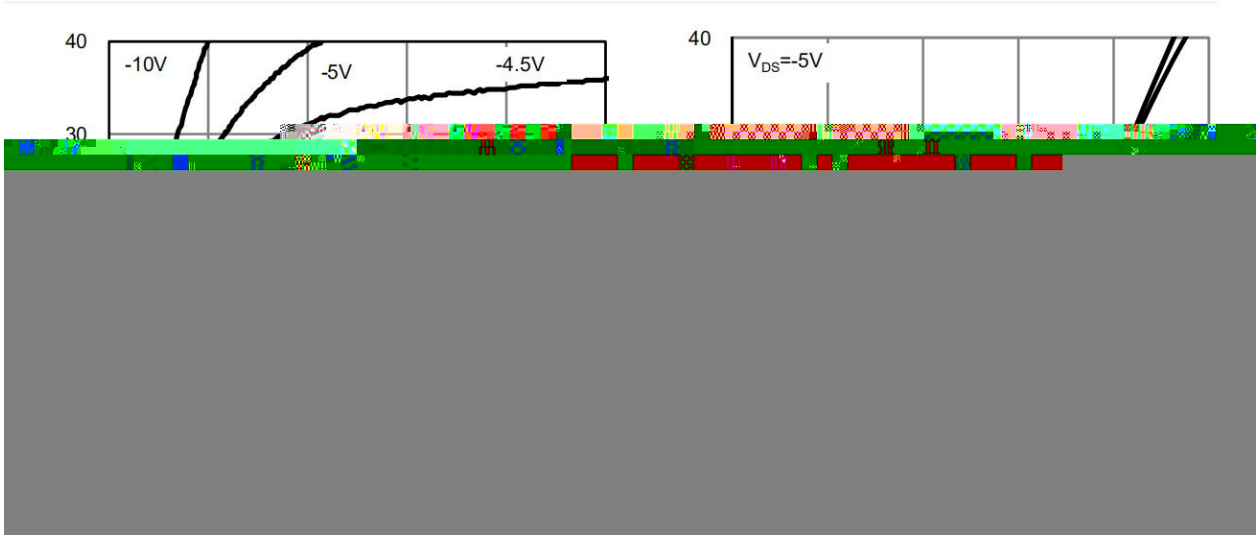




Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=-250\mu A$	-30	-33.8		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=-24V$ $V_{GS}=0V$			-1.0	$\mu A$
		$V_{DS}=-24V$ $V_{GS}=0V$ $T_J=55^\circ C$			-5.0	$\mu A$
Gate-Body leakage current	$I_{GSS}$	$V_{GS}=\pm 20V$ $V_{DS}=0V$			$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-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	m
		$V_{GS}=-4.5V$ $I_D=-5.0A$		79.4	90	m
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		$\Omega$
Total Gate Charge(10V)	$Q_g$	$V_{GS}=g$				

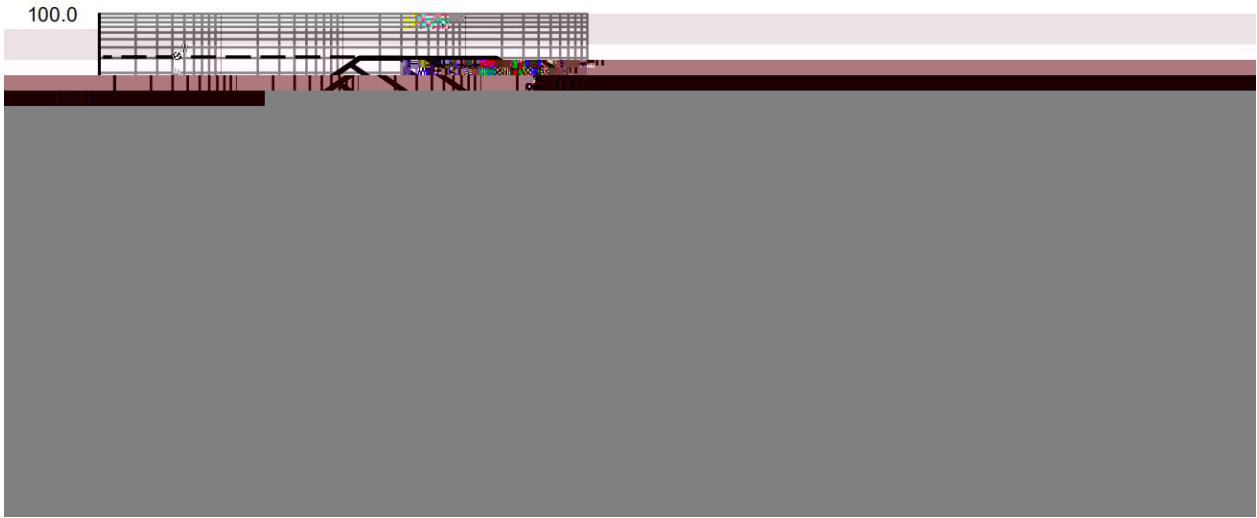
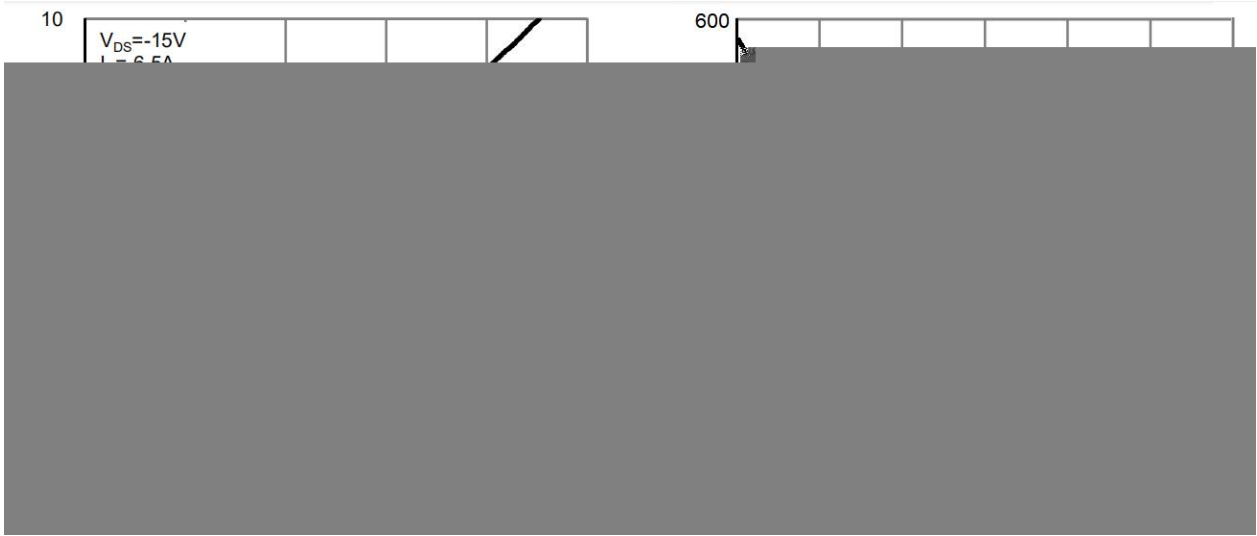


**P- / P-CHANNEL Electrical Characteristic Curve**



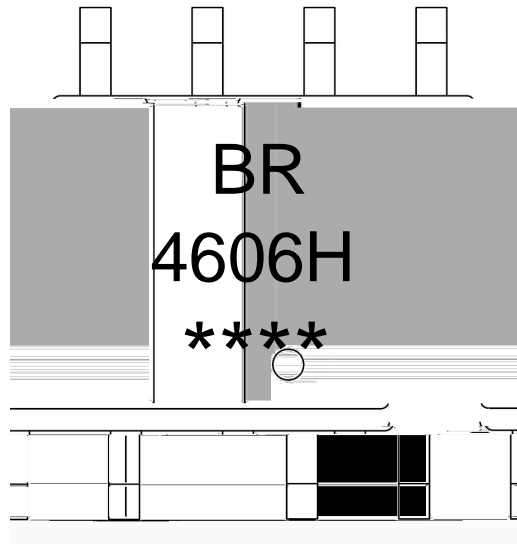


**P- / P-CHANNEL Electrical Characteristic Curve**





**/ Marking Instructions**



BR

4606H

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Note:

BR: Company Code.

4606H: Product Type.

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



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



- |   |           |             |       |   |
|---|-----------|-------------|-------|---|
| 1 | 150 ~ 180 | 60 ~ 90sec; | Note: | 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.            |

/ Resistance to Soldering Heat Test Conditions

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

