

/ Descriptions

SOT23-3 Ȳ P ȳ MOS Ȳ
S- CHANNEL MOSFET in a SOT23-3 Plastic Package.

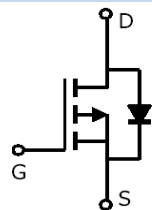
/ Features

$Y_{GV} + Y_s = 0.49Y$ $L_G = 0.13D$
 $U_{GV+RQ}, C_{0718Y} \leq 53m\Omega + W_{ys14} : 18m\Omega,$
 $U_{GV+RQ}, C_{0518Y} \leq 63m\Omega + W_{ys15913} : 3m\Omega,$
 $U_{GV+RQ}, C_{041} ; Y \leq 433m\Omega + W_{ys17318} : 8m\Omega,$
KF Srr gxfwl

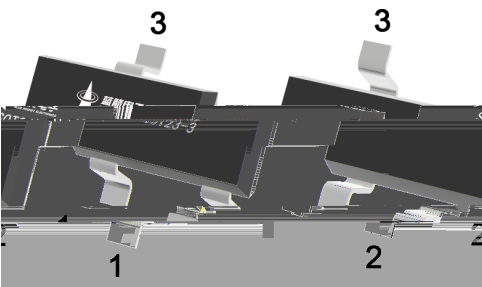
/ Applications

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Power Management in Notebook computer, Portable Equipment and Battery powered systems.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 S PIN 3 D

/ Marking

Marking	C6H
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/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-16	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	-7.0	A
Pulsed Drain Current	I_{DM}	-30	A
Power Dissipation for Single Operation	P_D	1.2	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	
Thermal Resistance-Junction to Ambient	R_{dJA}	100	/W

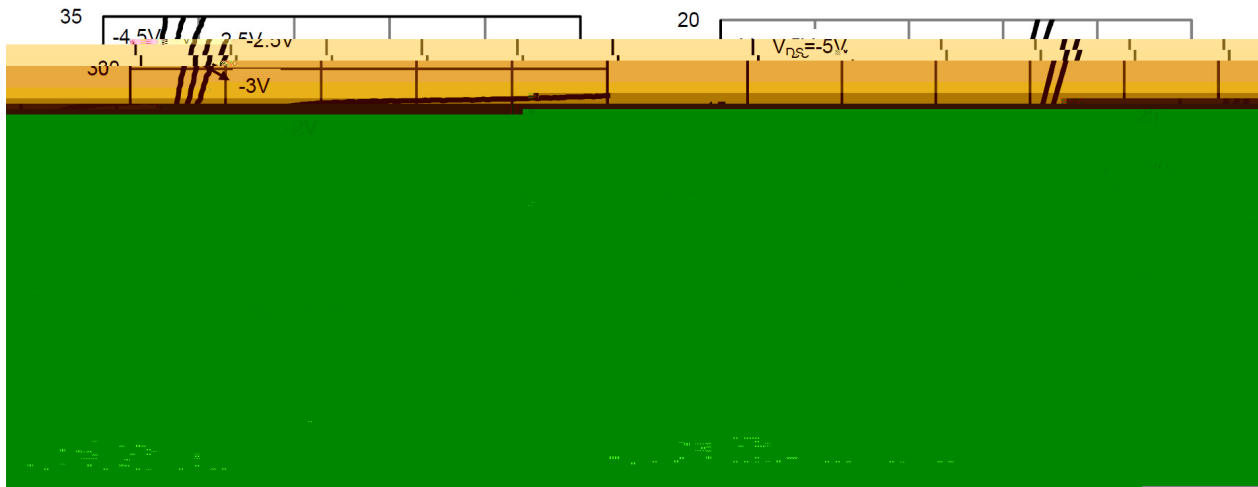
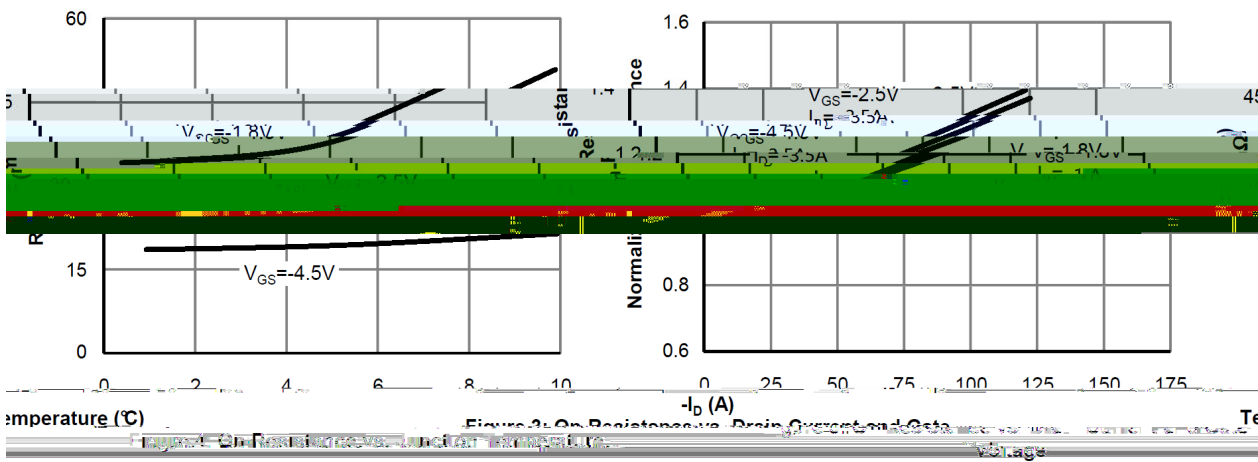
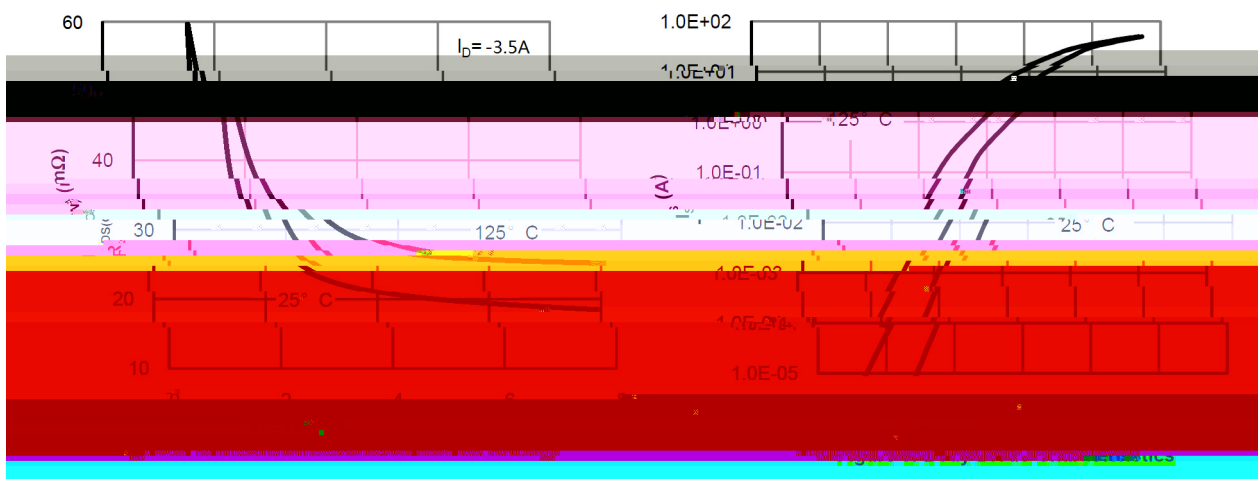
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$I_D=-250\mu\text{A}$ $V_{GS}=0\text{V}$	-16	-17		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-12.8\text{V}$ $V_{GS}=0\text{V}$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}$ $V_{GS}=\pm 12\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu\text{A}$	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-4.5\text{V}$ $I_D=-3.5\text{A}$		17.5	20	m
		$V_{GS}=-2.5\text{V}$ $I_D=-3.5\text{A}$		26	30	
		$V_{GS}=-1.8\text{V}$ $I_D=-1\text{A}$		40.5	100	
Diode Forward Voltage	V_{SD}	$I_S=-1\text{A}$ $V_{GS}=0\text{V}$			-1.2	V
Gate resistance	R_g	$V_{GS}=0\text{V}$, $f=1\text{MHz}$ $V_{DS}=0\text{V}$		5.8		
Input Capacitance	C_{iss}	$V_{GS}=0\text{V}$ $V_{DS}=-5\text{V}$ $f=1\text{MHz}$		1350		pF
Output Capacitance	C_{oss}			290		
Reverse Transfer Capacitance	C_{rss}			250		


/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V, \quad V_{DS}=-10V,$ $I_D=-7.0A$		13.2		nC
Gate Source Charge	Q_{gs}			1.5		
Gate Drain Charge	Q_{gd}			3.6		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V \quad I_D=-7.0A$ $V_{DS}=-10V \quad R_{GEN}=3\Omega$		13.7		ns
Turn-On Rise Time	t_r			47.6		
Turn-Off Delay Time	$t_{d(off)}$			43.1		
Turn-Off Fall Time	t_f			29.5		

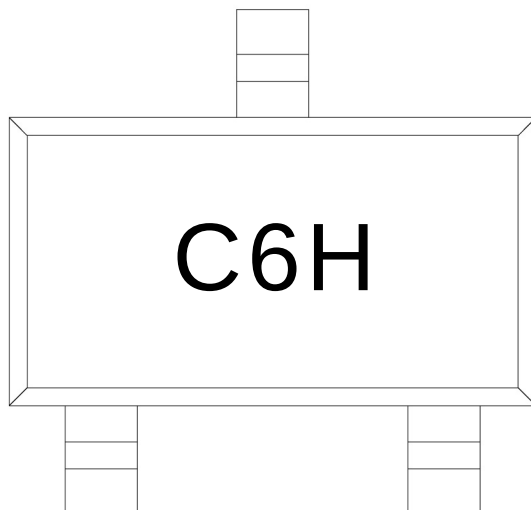
/ Electrical Characteristic Curve





/ Electrical Characteristic Curve

/ Marking Instructions



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C6

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H

H

Note:

C6: Product Type Code

H: Company Code

BRCS200P016MC