

BRCS350P016MA

Rev.A Apr.-2025



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

SOT-23 3-Pin MOSFET

S-CHANNEL MOSFET in a SOT-23 Plastic Package.

$V_{GS} = 4.5V$ @ $f_{sw} = 0.1MHz$

$U_{GS} = 0.7V$, $C_{iss} = 68pF$ @ $f_{sw} = 100kHz$

$U_{GS} = 0.5V$, $C_{iss} = 88pF$ @ $f_{sw} = 100kHz$

$U_{GS} = 0.4V$, $C_{iss} = 87pF$

Power MOSFET

Power MOSFET

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

MOSFET Equivalent Circuit

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-16	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	-5.0	A
Pulsed Drain Current	I_{DM}	-20	A
Power Dissipation for Single Operation	P_D	0.7	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 $\sim$ 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	179	$^{\circ}C/W$

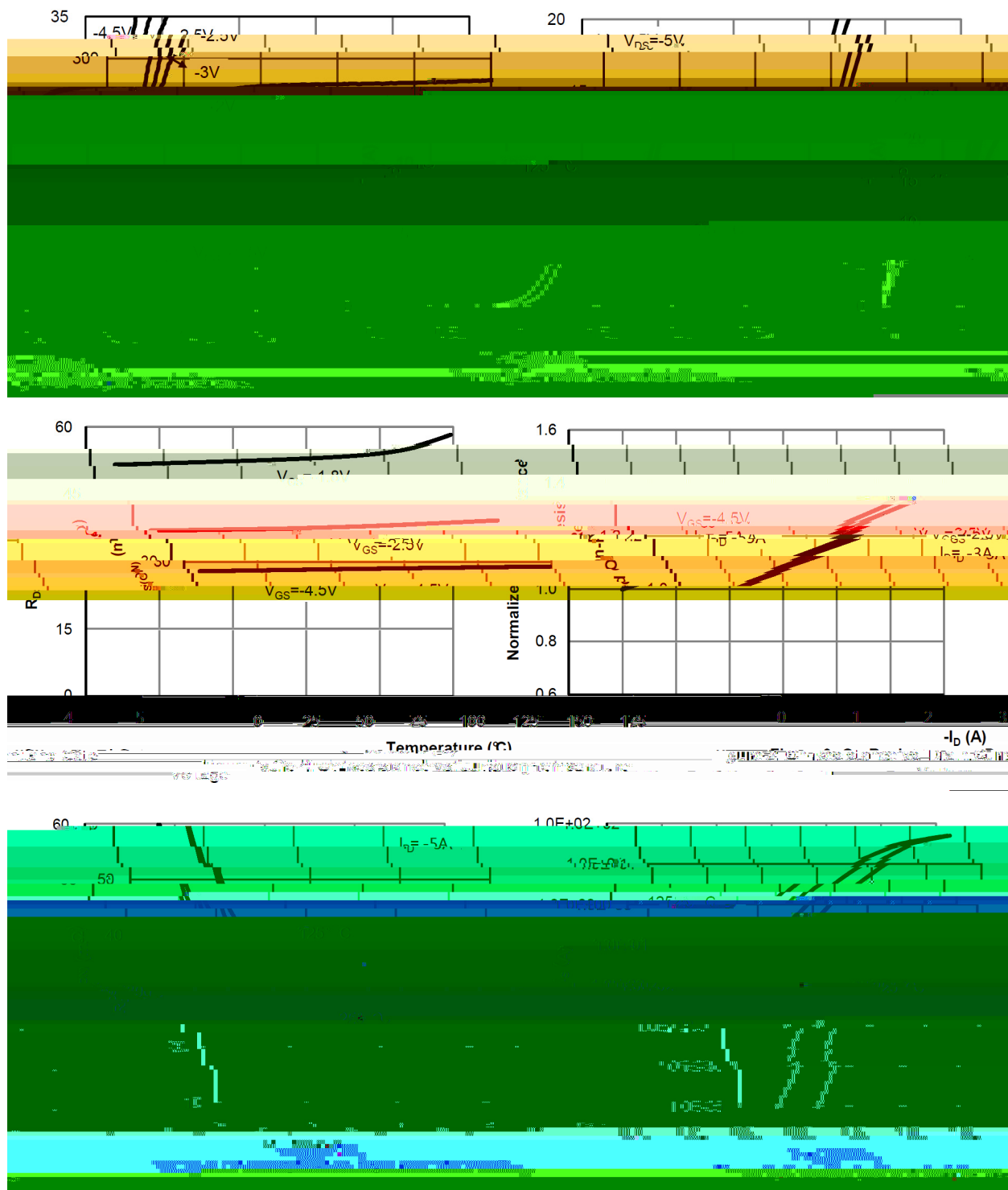
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$I_D = -250\mu A$ $V_{GS} = 0V$	-16	-17.8		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -15V$ $V_{GS} = 0V$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu A$	-0.4	-0.62	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4.5V$ $I_D = -5A$		28.5	35	m Ω
		$V_{GS} = -2.5V$ $I_D = -3A$		38.8	55	
		$V_{GS} = -1.8V$ $I_D = -1A$		54		
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$			-1.2	V
Reverse Recovery Time	t_{rr}	$V_{DS} = -10V$, $I_D = -4A$ $di_{SD}/dt = 100 A/\mu s$		18.7		ns
Reverse Recovery Charge	Q_{rr}			4		nC
Gate resistance	R_g	$V_{GS} = 0V$, $f = 1MHz$ $V_{DS} = 0V$,		8.5		Ω
Input Capacitance	C_{iss}	$V_{GS} = 0V$ $V_{DS} = -15V$ $f = 1MHz$		495		pF
Output Capacitance	C_{oss}			100		
Reverse Transfer Capacitance	C_{rss}			80		

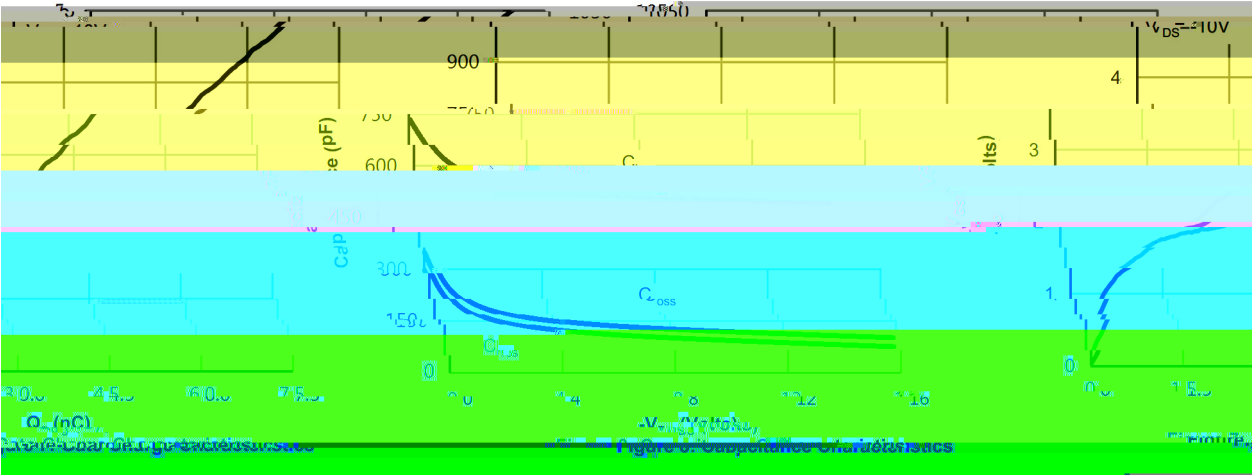
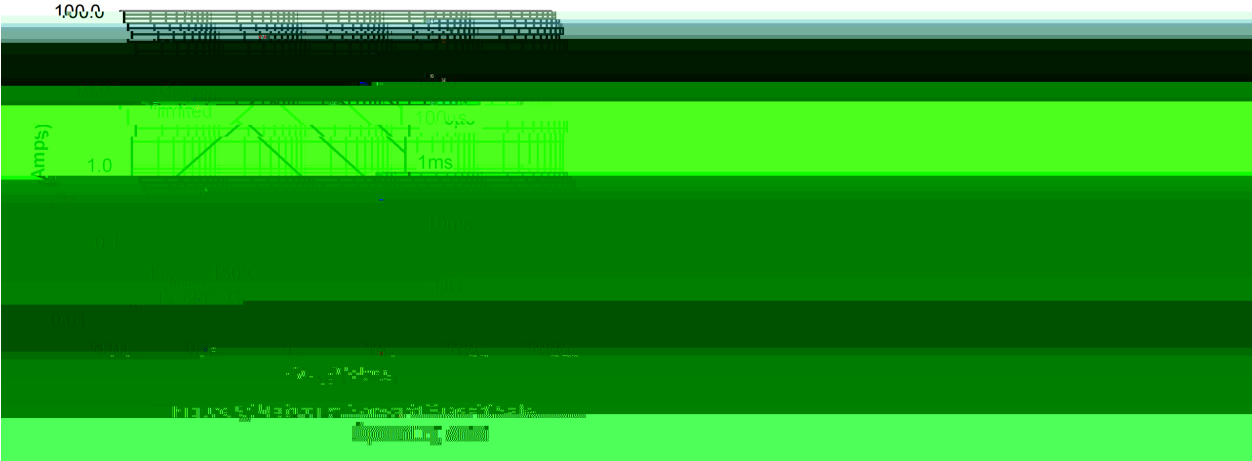
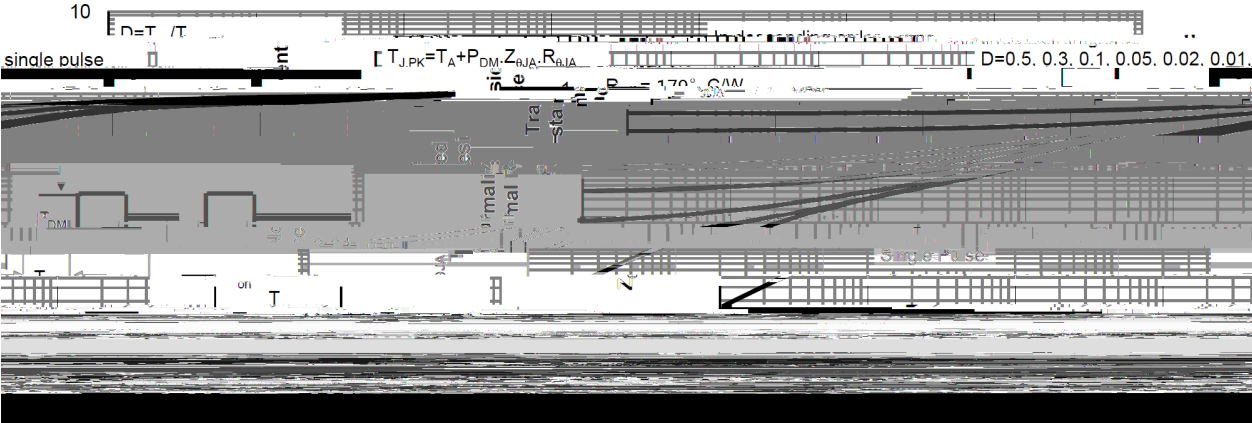
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q _g	V _{GS} =-4.5V, V _{DS} =-10V, RL=2.5Ω		5.7		nC
Gate Source Charge	Q _{gs}			0.3		
Gate Drain Charge	Q _{gd}			1.9		
Turn-On Delay Time	t _{d(on)}	V _{GS} =-4.5V V _{DS} =-10V RL=2.5Ω R _g =3Ω		8.3		ns
Turn-On Rise Time	t _r			32.3		
Turn-Off Delay Time	t _{d(off)}			38.2		
Turn-Off Fall Time	t _f			49.4		

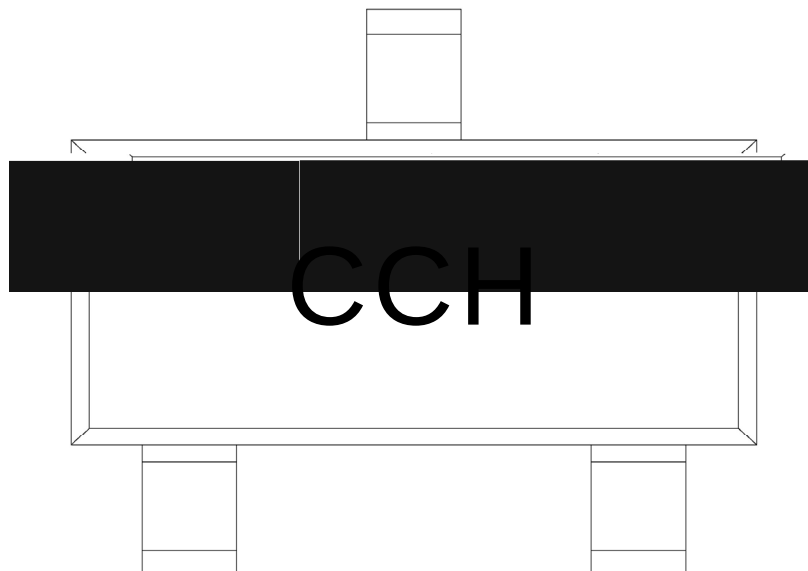
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Marking Instructions



CCH

H: 蓝箭电子

CC: 蓝箭电子

Note:

H: Company Code

CC: Product Type Code

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