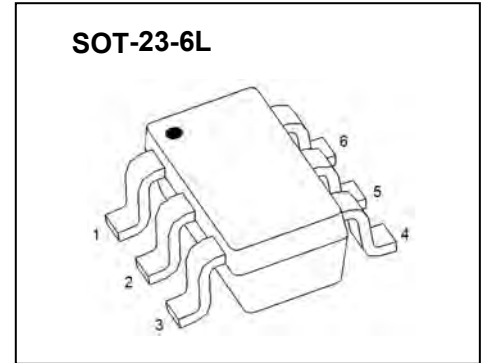




Plastic-Encapsulate MOSFETS

Dual N-Channel MOSFET

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
20 V	60mΩ@4.5V	2.3A
	115mΩ@2.5V	



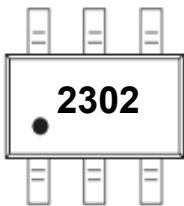
FEATURE

- TrenchFET Power MOSFET
- Excellent $R_{DS(on)}$
- Low Gate Charge
- High Power and Current Handling Capability
- Surface Mount Package

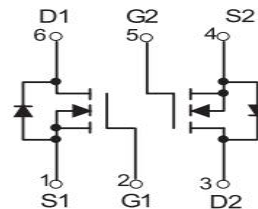
APPLICATION

- Battery Protection
- Load Switch
- Power Management

MARKING



Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±8	V
Continuous Drain Current	I_D	2.3	A
Pulsed Drain Current (note 1)	I_{DM}	10	A
Continuous Source-Drain Diode Current	I_s	0.6	A
Thermal Resistance from Junction to Ambient (note 2)	$R_{\theta JA}$	357	$^{\circ}C/W$
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}C$

MOSFET ELECTRICAL CHARACTERISTICS

T_a=25 °C unless otherwise specified

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC CHARACTERISTICS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 10μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±8V, V _{DS} = 0V			±100	nA
Gate threshold voltage (note 3)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 50μA	0.65	0.95	1.2	V
Drain-source on-resistance (note 3)	R _{DS(on)}	V _{GS} = 4.5V, I _D = 2.3A		45	60	mΩ
		V _{GS} = 2.5V, I _D = 2A		70	115	mΩ
Forward transconductance (note 3)	g _{FS}	V _{DS} = 5V, I _D = 3.6A		8		S
Diode forward voltage (note 3)	V _{SD}	I _S = 0.94A		0.76	1.2	V
DYNAMIC CHARACTERISTICS (note 4)						
Input Capacitance	C _{iss}	V _{DS} = 10V, V _{GS} = 0V, f = 1MHz		300		pF
Output Capacitance	C _{oss}			120		pF
Reverse Transfer Capacitance	C _{rss}			80		pF
SWITCHING CHARACTERISTICS (note 4)						
Turn-on delay time	t _{d(on)}	V _{DD} = 10V, V _{gen} = 4.5V I _D = 3.6A, R _g = 5.5Ω , R _g = 6Ω		7	15	ns
Turn-on rise time	t _r			55	80	ns
Turn-off delay time	t _{d(off)}			16	60	ns
Turn-off fall time	t _f			10	25	ns
Total Gate Charge	Q _g	V _{DS} = 10V, V _{GS} = 4.5V, I _D = 3.6A		4.0	10	nC
Gate-Source Charge	Q _{gs}			0.65		nC
Gate-Drain Charge	Q _{gd}			1.5		nC

Notes :

1. Repetitive rating: Pulse width limited by maximum junction temperature
2. Surface Mounted on FR4 board, t ≤ 10 sec.
3. Pulse test : Pulse width ≤ 300μs, duty cycle ≤ 2%.
4. Guaranteed by design, not subject to production.



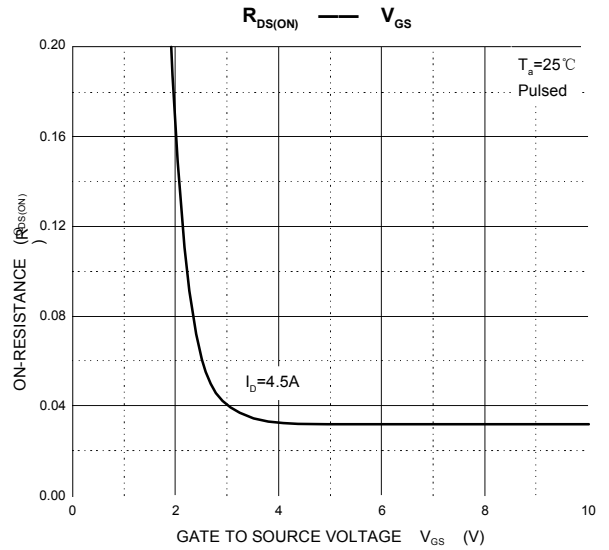
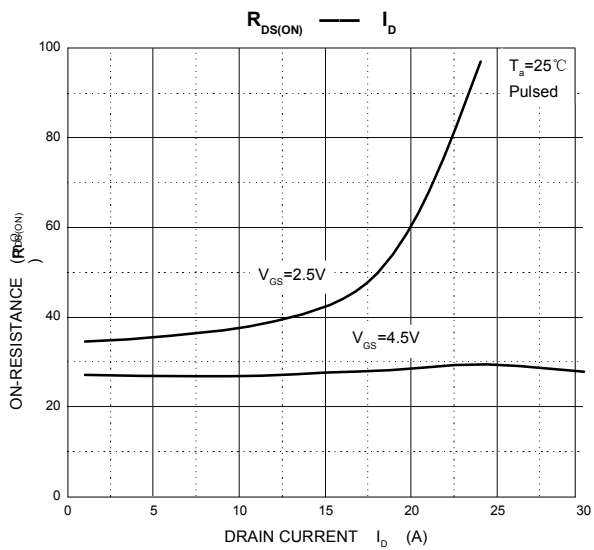
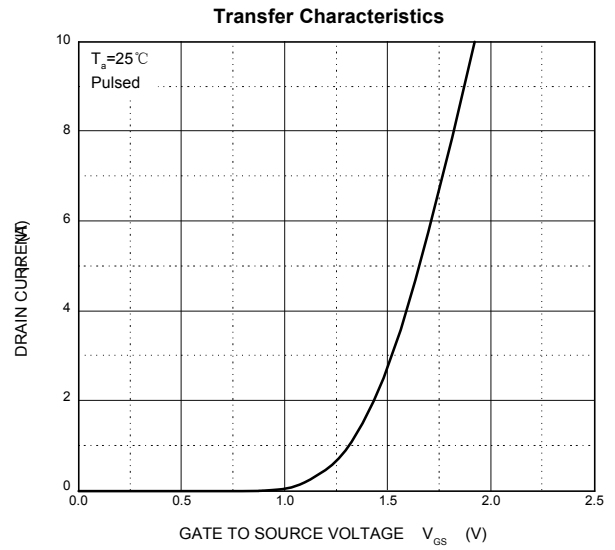
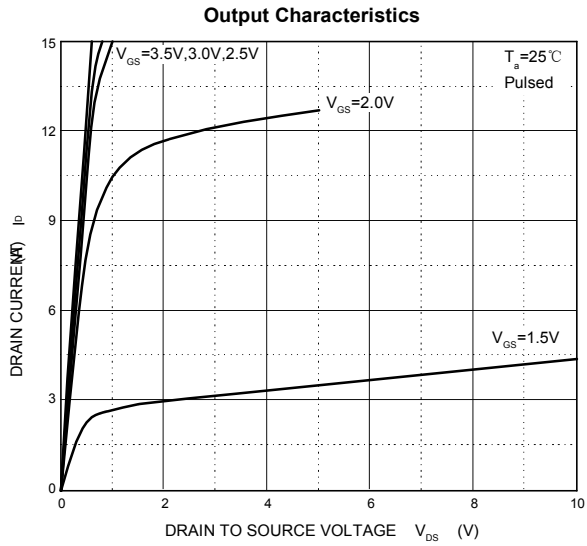
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SOT-23-6L CB2302-2.3A

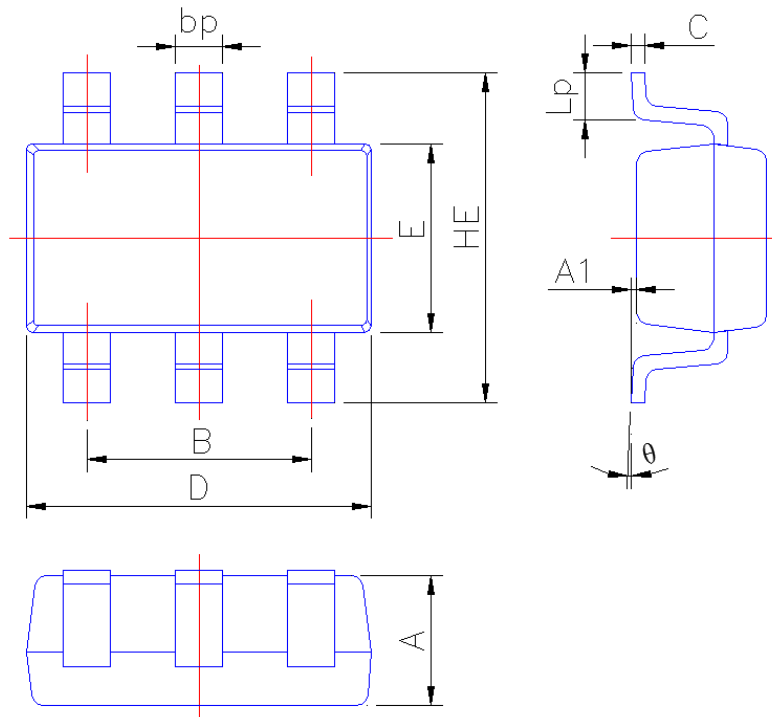


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Typical Characteristics



SOT-23-6L Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	1.05	1.20
A1	0.010	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.12	0.20
D	2.80	3.00
E	1.50	1.70
HE	2.60	3.00
Lp	0.25	0.55
θ	2°	6°