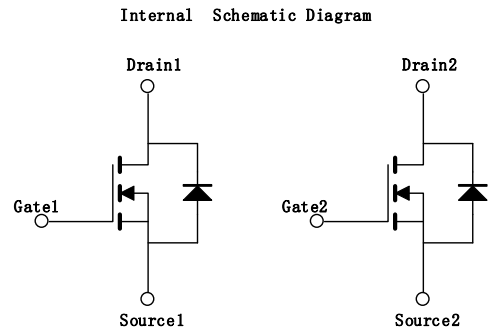


SC8205 (文件编号:S&CIC0692)

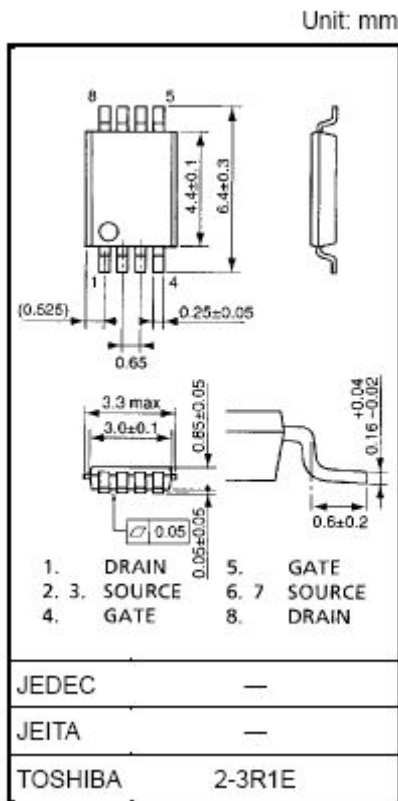
Features

- Advanced trench process technology;
- High density cell design for ultra low On-Resistance;
- High power and current handling capability;
- Ideal for Li ion battery pack applications;
- $R_{DS(ON)}$, $V_{gs}@2.5V$, $I_{ds}@5.2A = 40m\Omega$;
- $R_{DS(ON)}$, $V_{gs}@4.5V$, $I_{ds}@6A = 30m\Omega$;
- Recommended Package: TSSOP-8/SO-8/SOT-23-6.

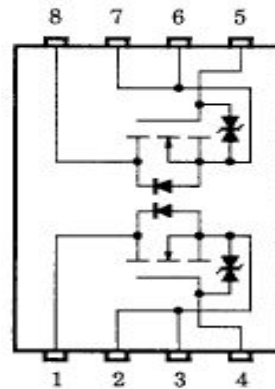


N-Channel MOSFET

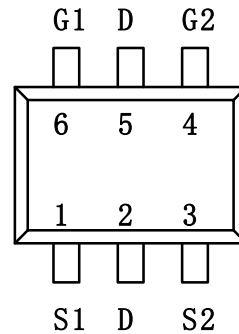
Package



Circuit Configuration



SOT-23-6



Maximum Ratings and Thermal Characteristics ($T_a = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-Source voltage	V_{DS}	20	V
Gate-Source voltage	V_{GS}	± 12	
Continuous drain current	I_D	6	A
Pulsed drain current ¹⁾	I_{DM}	20	
Operating junction and storage temperature range	T_J, T_{stg}	-55 to 150	$^\circ C$

Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static ²⁾						

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Drain-Source Breakdown Voltage	BVDSS	VGS = 0V, ID = 250uA	20	--	--	V
Drain-Source On-Stage Resistance	RDS(on)	VGS = 2.5V, ID = 5.2A	--	32.0	40.0	mΩ
Drain-Source On-Stage Resistance	RDS(on)	VGS = 4.5V, ID = 6A	--	23.0	30.0	
Gate Threshold Voltage	VGS(th)	VDS = VGS, ID = 250uA	0.6	--	1.2	V
Zero Gate Voltage Drain Current	IDSS	VDS = 20V, VGS = 0V	--	--	1	uA
Gate Body Leakage	IGSS	VGS = 0V, ID=250uA	--	--	±100	nA
Forward Tran conductance	gfs	VDS = 10V, ID = 6A	--	5	--	S
Source-Drain Diode						
Max. Diode Forward Current	IS	--	--	--	1.7	A
Diode Forward Voltage	VSD	IS = 1.7A, VGS = 0V	--	--	1.2	V

Note: 1. Pulse test: Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$

2. Static parameters are based on package level with recommended wire-bonding

