

Features

- Uses CRM(CQ) Advanced Trench MOS technology
- Extremely low on-resistance $R_{DS(on)}$
- Excellent $Q_g \times R_{DS(on)}$ product(FOM)

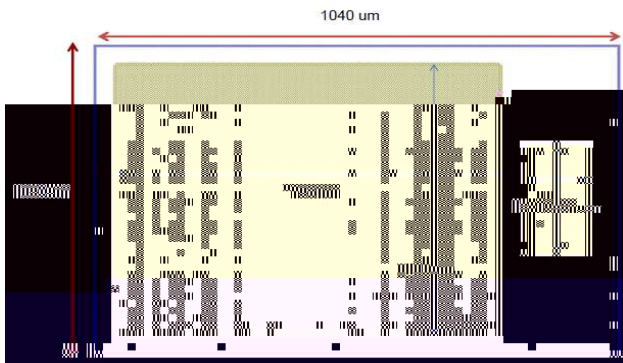
Product Summary

V_{DS}	20V
$R_{DS(on)}$ typ.	16mΩ
Die Area	0.8mm ²

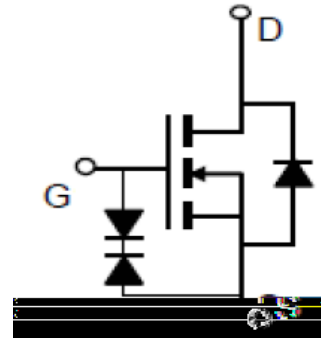
Applications

- Motor control and drive
- Battery management
- UPS (Uninterruptible Power Supplies)

Chip Diagram



Pin Description



Physical Characteristic

Parameter	Value	Unit	Remark
Wafer Diameter	8 ± 0.1	Inch	
Wafer Thickness	7 ± 0.6	mil	
Die size(Incl. scribe line)	1100 × 750	um	
Scribe Line Width	60	um	
Gross die	35,352	ea	
Metalization(front side)	4um Al/Cu	-	
Metalization(back side)	1.4um Ti/Ni/Ag	-	
Bonding Area - Gate	130 × 242	um	
Bonding Area - Source	766 × 610	um	

Electrical Characteristic (at Tj = 25 °C, unless otherwise specified)

Parameter	Symbol	Value			Unit	Test Condition
		min.	typ.	max.		

Static Characteristic (CP test)

Drain-source breakdown voltage	BV_{DSS}	20	-	-	V	$V_{GS}=0V, I_D=250\mu A$
Gate threshold voltage	$V_{GS(th)}$	0.45	0.65	1	V	$V_{DS}=V_{GS}, I_D=250\mu A$
Zero gate voltage drain current	I_{DSS}	-	-	1	μA	$V_{DS}=16V, V_{GS}=0V$ $T_j=85^\circ C$
Gate-source leakage current	I_{GSS}	-	-	± 10	μA	$V_{GS}=\pm 10V, V_{DS}=0V$
Drain-source on-state resistance	$R_{DS(on)}^*$	-	16	20	$m\Omega$	$V_{GS}=4.5V, I_D=6A,$ $V_{GS}=2.5V, I_D=5A$ $V_{GS}=1.8V, I_D=4A$

Note: * RDS(on) states here is not CP testing value, but package level testing value with chip assembled in TSSOP-8/SOT-23 type using 6*2mil Cu source wire bond.

Revision History

Revision	Date	Major changes
1.0	2018-07-12	Release of formal version

Disclaimer

Unless otherwise specified in the datasheet, the product is designed and qualified as a standard commercial product and is not intended for use in applications that require extraordinary levels of quality and reliability, such as automotive, aviation/aerospace and life-support devices or systems.

Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.

CRM(CQ) reserves the right to improve product design, function and reliability without notice.