

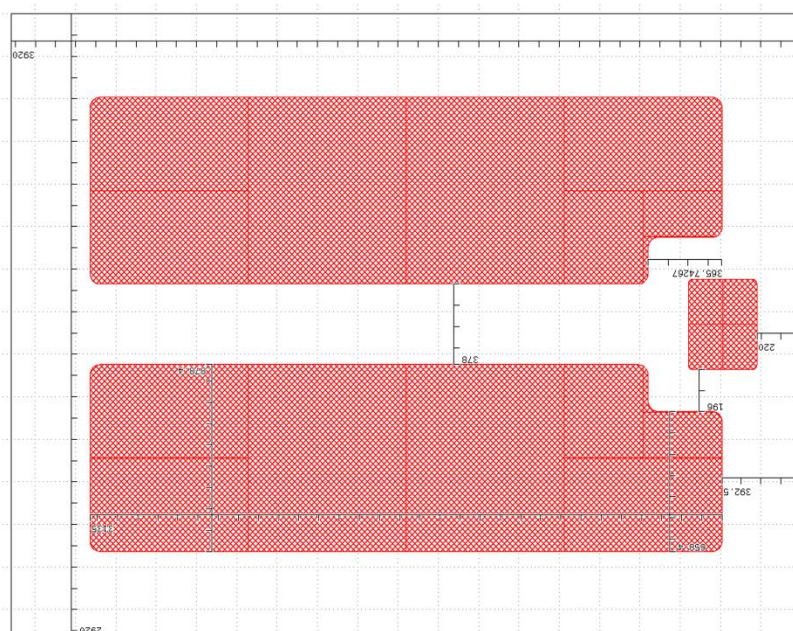
Features

- ♦ High Speed Switching with Low Capacitances
- ♦ High Blocking Voltage with Low RDS(on)
- ♦ Easy to Parallel
- ♦ Simple to Drive
- ♦ RoHS Compliant

Part NO.	MSM042N1K2CZ1B	
V_{dss}	=	1200 V
R_{dson}(@33A)	=	42moh
I_D@ (25°C)	=	60 A

Wafer Parameters

Parameter	Typ.	Unit
Die Size(with SL)	4000 x 3000	μm
Scribe Line	80	μm
Anode Pad Opening	3235 x1960	μm
Wafer Diameter	150	mm
Thickness	150±10	μm
Anode Metalization (Al)	4	μm
Cathode Metalization (Ti/Ni/Ag)	0.1/0.5/1	μm
Grossdie	1200	pcs



Maximum ratings

Symbol	Parameter	Test conditions	Value	Unit
VDS	Drain-Source Voltage		1200	V
ID	Continuous Drain Current	Tc=25°C Tc=100°	60 56	A
IDM	Peak Drain Current	Pulse width tp limited by Tjmax	160	A
VGSmax	Gate-Source Voltage		-8/+22	V
VGSop	Recommend Gate-Source Voltage		0/18	V
Tj	Operating Junction Temperature		-55~175	°C

Electrical Characteristics**Static Characteristics**

Symbol	Parameter	Test conditions	Value			Unit
			Min.	Typ.	Max.	
V(BR)DSS	Drain-Source Breakdown Voltage	ID=100μA, VGS=0V		1200		V
VGS(th)	Gate Threshold Voltage	VDS=VGS, ID=10mA Tj=25°C Tj=175°C		3.5 2.8		V
RDS(on)	Drain-Source On-State Resistance	VGS=18V, ID=40A Tj=25°C Tj=175°C		36 45		mΩ