

**MOSFET Metal-Oxide-Semiconductor Field-Effect Transistor
20V N-Channel MOSFET**

Bonding Pad Information		Chip Information	
		Die Size (with Scribe Line)	900μm x 730μm
		Gate Pad Size	140μm x 140μm
		Source Pad Size	Full metallized surface of source region
		Scribe Line Size	50μm
		Wafer Size	6inches
		Wafer Thickness	6mils
Metallization	Front Side	Al/Si/Cu : 4μm	
	Back Side	Ti/Ni/Ag : 1.4μm	
Recommended Wire Bonding			
	Gate Pad	1.65 mil x 1 (Cu wire)	
	Source Pad	1.65 mil x 6 (Cu wire)	
	Gross Die	23,950ea	

Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	20	V
Gate-Source Voltage	V_{GSS}	± 8	V
Operating Junction Temperature Range	T_J	-55 to +150	°C

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTIC						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu\text{A}$	20	-	-	V
Drain-Source Leakage Current	I_{DSS}	$V_{GS}=0V, V_{DS}=16V$	-	-	1	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0V$	-	-	± 10	μA
ON CHARACTERISTIC						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=250\mu\text{A}$	0.5	-	1.1	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=4.5V, I_D=2A$	-	-	20	$\text{m}\Omega$
		$V_{GS}=2.5V, I_D=2A$	-	-	25	
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V, I_S=1A$	0.4	-	1.0	V

NOTE:

1. The data tested by pulsed, pulse with $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
2. $R_{DS(ON)}$ calculated by SOT-23 package type.
3. ESD protected.