

MOSFET Metal-Oxide-Semiconductor Field-Effect Transistor
150V N-Channel MOSFET

Bonding Pad Information	Chip Information	
	Die Size (with Scribe Line)	4,040μm x 2,860μm
	Gate Pad Size	330μm x 460μm
	Source Pad Size	Full metalized surface of source region ^a
	Scribe Line Size	60μm
	Wafer Size	6inches
	Wafer Thickness	8mils
	Metallization	Front Side: Al/Si/Cu : 4μm
		Back Side: Ti/Ni/Ag : 1.4μm
	Recommended Wire Bonding	
	Gate Pad	5 mil x 1 (Al wire)
	Source Pad	15 mil x 3 Stitch (Al wire)
	Gross Die	1,300ea

Maximum Ratings (T_A=25°C unless otherwise noted)

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

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTIC						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	150	-	-	V
Drain-Source Leakage Current	I _{DSS}	V _{GS} =0V, V _{DS} =120V	-	-	1	uA
Gate-Source Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0V	-	-	±100	nA
ON CHARACTERISTIC						
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} =V _{DS} , I _D =250uA	3.0	3.7	4.5	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =3A	-	30	38	mΩ
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:

- The data tested by pulsed, pulse with ≤ 300us, duty cycle ≤ 2%.
- R_{DS(ON)} calculated by TO-220AB package type.