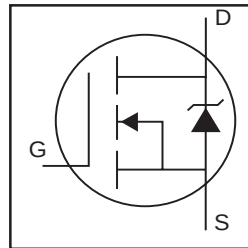


HEXFET® Power MOSFET Die in Wafer Form



40 V
Size 4.6
Rds(on)=0.020Ω
6" Wafer

Electrical Characteristics (Wafer Form)

Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	40V Min.	$V_{GS} = 0V, I_D = 250\mu A$
$R_{DS(on)}$	Static Drain-to-Source On-Resistance	0.020Ω Max.	$V_{GS} = 10V, I_D = 5.0A$
		0.030Ω Max.	$V_{GS} = 4.5V, I_D = 5.0A$
$V_{GS(th)}$	Gate Threshold Voltage	1.0V Min., 3.0V Max.	$V_{DS} = V_{GS}, I_D = 250\mu A$
I_{DSS}	Drain-to-Source Leakage Current	25μA Max.	$V_{DS} = 55V, V_{GS} = 0V, T_J = 25^\circ C$
I_{GSS}	Gate-to-Source Leakage	± 15μA Max.	$V_{GS} = \pm 16V$
T_J	Operating Junction and	175°C Max.	
T_{STG}	Storage Temperature Range		

Mechanical Data

Nominal Backmetal Composition, Thickness:	Cr-NiV-Ag (1kA°-2kA°-2.5kA°)
Nominal Front Metal Composition, Thickness:	99% Al, 1% Si (0.004 mm)
Dimensions:	0.181" x 0.303" (4.6mm x 7.7 mm)
Wafer Diameter:	150mm, with std. < 100 > flat
Wafer thickness:	.014" + / -.003"
Relevant Die Mechanical Dwg. Number	01-5298
Minimum Street Width	0.1 mm
Reject Ink Dot Size	0.13mm Diameter Minimum, 0.51mm Max.
Recommended Storage Environment:	Store in original container, in dessicated nitrogen, with no contamination
Recommended Die Attach Conditions	For optimum electrical results, die attach temperature should not exceed 300C

Reference Standard IR packaged part (for design) : IRLBL1304

Die Outline

Die outline diagram showing dimensions in millimeters and inches. The overall width is 4.60 mm [0.181] and the overall height is 7.70 mm [0.303]. The gate terminal width is 0.51 mm [0.020] and the source terminal width is 0.64 mm [0.025].

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].

2. CONTROLLING DIMENSION: [INCH].

3. LETTER DESIGNATION:

S = SOURCE SK = SOURCE KELVIN

G = GATE IS = CURRENT SENSE

4. DIMENSIONAL TOLERANCES:

BONDING PADS: < 0.635 TOLERANCE = +/- 0.013

WIDTH < [0.0250] TOLERANCE = +/- [0.0005]

& > 0.635 TOLERANCE = +/- 0.025

LENGTH > [0.0250] TOLERANCE = +/- [0.0010]

OVERALL DIE: < 1.270 TOLERANCE = +/- 0.102

WIDTH < [0.050] TOLERANCE = +/- [0.004]

& > 1.270 TOLERANCE = +/- 0.203

LENGTH > [0.050] TOLERANCE = +/- [0.008]

5. UNLESS OTHERWISE NOTED ALL DIE ARE GEN III

5. UNLESS OTHERWISE NOTED ALL DIE ARE GEN III