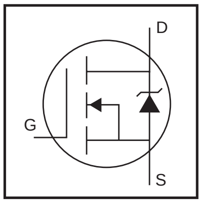
International
IOR Rectifier

PD - 93777

IRFC2907B

HEXFET® Power MOSFET Die in Wafer Form

- 100% Tested at Probe
- Available in Tape and Reel, Chip Pack, Sawn on Film and Gel Pack**
- Ultra Low On-Resistance



75V
$R_{DS(on)}$ = 2.5mΩ
(typ.)***
6" Wafer

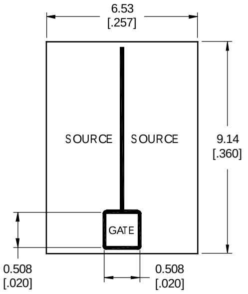
Electrical Characteristics *

Parameter	Description	Min	Typ.	Max	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	75V	——	——	V_{GS} = 0V, I_D = 250µA
$R_{DS(on)}$***	Static Drain-to-Source On-Resistance	——	2.5mΩ	4.5mΩ	V_{GS} = 10V, I_D = 110A
$V_{GS(th)}$	Gate Threshold Voltage	2.0	——	4.0V	V_{DS} = V_{GS}, I_D = 250µA
I_{DSS}	Drain-to-Source Leakage Current	——	——	20µA	V_{DS} = 75V, V_{GS} = 0V, T_J = 25°C
I_{GSS}	Gate-to-Source Leakage Current	——	——	± 200nA	V_{GS} = ±20V
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55°C to 175°C Max.			

Mechanical Data

Nominal Back Metal Composition, Thickness:	Cr-NiV-Ag (1kA°-2kA°-5kA°)
Nominal Front Metal Composition, Thickness:	100% Al (0.008 mm)
Dimensions:	.257" x .360" [6.53 mm x 9.14 mm]
Wafer Diameter:	150 mm, with 100 flat
Wafer Thickness:	0.254 mm ± 0.025 mm
Relevant Die Mechanical Drawing Number	01-5403
Minimum Street Width	0.107 mm
Reject Ink Dot Size	0.51 mm Diameter Minimum
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 300 °C
Reference Packaged Part	IRFP2907

Die Outline



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
2. CONTROLLING DIMENSION: [INCH].
3. LETTER DESIGNATION:
   S = SOURCE SK = SOURCE KELVIN E = EMITTER
   G = GATE IS = CURRENTSENSE
4. DIMENSIONAL TOLERANCES:
   BONDING PADS: < 0.635 TOLERANCE = +/- 0.013
   WIDTH < [.0250] TOLERANCE = +/- [.0005]
   & > 0.635 TOLERANCE = +/- 0.025
   LENGTH > [.0250] TOLERANCE = +/- [.0010]

   OVERALL DIE: < 1.270 TOLERANCE = +/- 0.102
   WIDTH < [.050] TOLERANCE = +/- [.004]
   & > 1.270 TOLERANCE = +/- 0.203
   LENGTH > [.050] TOLERANCE = +/- [.008]
5. UNLESS OTHERWISE NOTED ALL DIE ARE GEN III

* Electrical characteristics are reported for the reference packaged part (see above) and can not be guaranteed in die sales form. Variations in customer packaging materials, dimensions and processes may affect parametric performance.

** Contact factory for these product forms.

***The typical $R_{DS(on)}$ is an estimated value for the bare die, actual results will depend on customer packaging materials and dimensions.

10/4/00