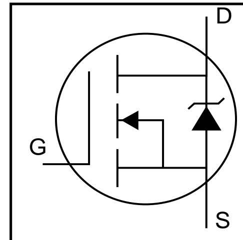
International
IOR Rectifier

IRFC460AB

HEXFET® Power MOSFET Die
in Wafer Form



515V
$R_{DS(on)}$=0.299Ω
5" Wafer

Electrical Characteristics

Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	515V Min.	V_{GS} = 0V, I_D = 150µA
$R_{DS(on)}$	Static Drain-to-Source On-Resistance	0.299Ω Max.	V_{GS} = 10V, I_D = 12A
$V_{GS(th)}$	Gate Threshold Voltage	2.3V Min., 3.9V Max.	V_{DS} = V_{GS}, I_D = 250µA
I_{DSS}	Drain-to-Source Leakage Current	5.0µA Max.	V_{DS} = 500V, V_{GS} = 0V, T_J = 25°C
I_{GSS}	Gate-to-Source Leakage Current	100µA Max.	V_{GS} = 45V
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55°C to 150°C Max.	

Mechanical Data

Nominal Back Metal Composition, Thickness:	Cr-NiV-Ag (0.1µm-0.2µm-0.25µm)
Nominal Front Metal Composition, Thickness:	Al with 1% Si (0.003 mm)
Dimensions:	0.247" x 0.350" (6.26 mm x 8.88 mm)
Wafer Diameter:	125 mm
Wafer Thickness:	0.375 mm ± 0.025 mm
Relevant Die Mechanical Drawing Number	01-5426
Minimum Street Width	0.0033"
Reject Ink Dot Size	0.51mm 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
Referenced Package Part:	IRFP460A

Die Outline

1.60 [.063]
1.24 [.049]
S
8.88 [.350]
G
0.62 [.024]
6.26 [.247]
0.68 [.027]

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

10/17/01