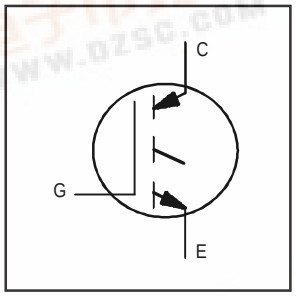
International
IOR Rectifier

PD-94307

IRG4CF50WB

IRG4CF50WB IGBT Die in Wafer Form



900 V
Size 5
Warp Speed
6" Wafer

Electrical Characteristics (Wafer Form)

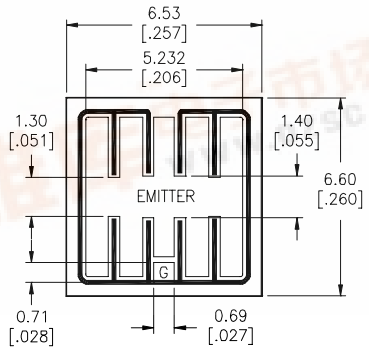
Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{CE\ (on)}$	Collector-to-Emitter Saturation Voltage	3.11V Max.	I_C = 10A, T_J = 25°C, V_{GE} = 15V
$V_{(BR)CES}$	Collector-to-Emitter Breakdown Voltage	900V Min.	T_J = 25°C, I_{CES} = 250µA, V_{GE} = 0V
$V_{GE(th)}$	Gate Threshold Voltage	3.0V Min., 6.0V Max.	V_{GE} = V_{CE} , T_J =25°C, I_C =250µA
I_{CES}	Zero Gate Voltage Collector Current	250 µA Max.	T_J = 25°C, V_{CE} = 900V
I_{GES}	Gate-to-Emitter Leakage Current	± 1.1 µA Max.	T_J = 25°C, V_{GE} = +/- 20V

Mechanical Data

Norminal Backmetal Composition, Thickness:	Cr-Ni-Ag (1kA-2kA-.2.5kA)
Norminal Front Metal Composition, Thickness:	99% Al, 1% Si (4 microns)
Dimensions:	0.257" x 0.260"
Wafer Diameter:	150mm, with std. < 100 > flat
Wafer thickness:	.015" + / -.003"
Relevant Die Mechanical Dwg. Number	01-5270
Minimum Street Width	100 Microns
Reject Ink Dot Size	0.25mm Diameter Minimum
Ink Dot Location	Consistent throughout same wafer lot
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) : IRG4PF50W (When available)

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: WIDTH & LENGTH	< 0.635 TOLERANCE	= +/-	0.013
	< [.0250] TOLERANCE	= +/-	[.0005]
	> 0.635 TOLERANCE	= +/-	0.025
	> [.0250] TOLERANCE	= +/-	[.0010]
OVERALL DIE: WIDTH & LENGTH	< 1.270 TOLERANCE	= +/-	0.102
	< [.050] TOLERANCE	= +/-	[.004]
	> 1.270 TOLERANCE	= +/-	0.203
	> [.050] TOLERANCE	= +/-	[.008]