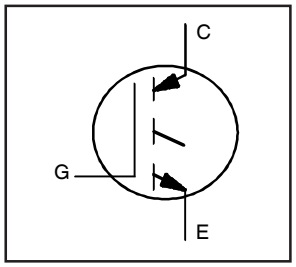
International
IOR Rectifier

IRG4CC50UB

IRG4CC50UB IGBT Die in Wafer Form



600 V
Size 5
Ultra-Fast Speed
6" Wafer

Electrical Characteristics (Wafer Form)

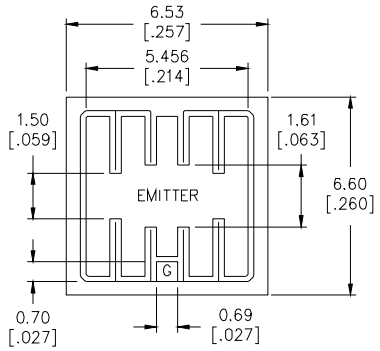
Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{CE\ (on)}$	Collector-to-Emitter Saturation Voltage	2.0V Max.	I_C = 10A, T_J = 25°C, V_{GE} = 15V
$V_{(BR)CES}$	Colletor-to-Emitter Breakdown Voltage	600V Min.	T_J = 25°C, I_{CES} = 250µA, V_{GE} = 0V
$V_{GE(th)}$	Gate Threshold Voltage	3.0V Min., 6.0V Max.	V_{GE} = V_{CE} , T_J =25°C, I_C =250µA
I_{CES}	Zero Gate Voltage Collector Current	250µA Max.	T_J = 25°C, V_{CE} = 600V
I_{GES}	Gate-to-Emitter Leakage Current	± 1.1µA Max.	T_J = 25°C, V_{GE} = +/- 20V

Mechanical Data

Norminal Backmetal Composition, Thickness:	Cr-Ni / V-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	01-5226
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) : IRG4PC50U

Die Outline



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
2. CONTROLLING DIMENSION: (INCH).
3. LETTER DESIGNATION:
   S = SOURCE SK = SOURCE KELVIN
   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