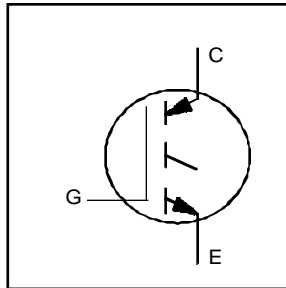


IRGCH70KE IGBT Die in Wafer Form



1200 V
 Size 7
 Ultra-Fast Speed
 5" Wafer

Electrical Characteristics (Wafer Form)

Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{CE(on)}$	Collector-to-Emitter Saturation Voltage	3.3V Max.	$I_C = 20A, T_J = 25^\circ C, V_{GE} = 15V$
$V_{(BR)CES}$	Collector-to-Emitter Breakdown Voltage	1200V Min.	$T_J = 25^\circ C, I_{CES} = 250\mu A, V_{GE} = 0V$
$V_{GE(th)}$	Gate Threshold Voltage	3.0V Min., 6.0V Max.	$V_{GE} = V_{CE}, T_J = 25^\circ C, I_C = 250\mu A$
I_{CES}	Zero Gate Voltage Collector Current	250 μA Max.	$T_J = 25^\circ C, V_{CE} = 1200V$
I_{GES}	Gate-to-Emitter Leakage Current	± 500 nA Max.	$T_J = 25^\circ C, V_{GE} = \pm 20V$

Mechanical Data

Norminal Backmetal Composition, Thickness:	Cr-Ni-Ag (1kA-4kA-6kA)
Norminal Front Metal Composition, Thickness:	99% Al, 1% Si (3 microns)
Dimensions:	0.340" x 0.340"
Wafer Diameter:	125mm, with std. < 100 > flat
Wafer thickness:	.015" + / -.003"
Relevant Die Mechanical Dwg. Number	01-5153
Minimum Street Width	100 Microns
Reject Ink Dot Size	0.25mm Diameter Minimum
Ink Dot Location	See Die Outline drawing below
Recommended Storage Environment:	Store in original container, in dessicated nitrogen, with no contamination

Die Outline

NOTES :

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES)
- CONTROLLING DIMENSION : (INCH)
- LETTER DESIGNATION :
 S = SOURCE SK = SOURCE KELVIN
 G = GATE IS = CURRENT SENSE
- 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)
 & > 0.635 TOLERANCE = +/- 0.203
 LENGTH > (.050) TOLERANCE = +/- (.008)
- UNLESS OTHERWISE NOTED ALL DIE ARE GEN III