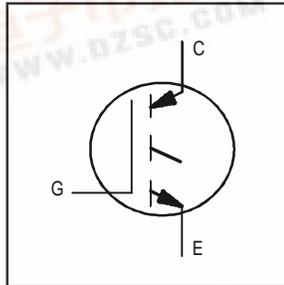


International
IR Rectifier

PD-91772

IRG4CC40KB

IRG4CC40KB IGBT Die in Wafer Form



600 V
Size 4
Ultra-Fast Speed
6" Wafer

Electrical Characteristics (Wafer Form)

Parameter	Description	Guaranteed (Min/Max)	Test Conditions
$V_{CE(on)}$	Collector-to-Emitter Saturation Voltage	4.5V Max.	$I_C = 10A, T_J = 25^\circ C, V_{GE} = 15V$
$V_{(BR)CES}$	Collector-to-Emitter Breakdown Voltage	600V 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	300 μA Max.	$T_J = 25^\circ C, V_{CE} = 600V$
I_{GES}	Gate-to-Emitter Leakage Current	$\pm 11 \mu A$ Max.	$T_J = 25^\circ C, V_{GE} = +/- 20V$

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:	0.127" x 0.232"
Wafer Diameter:	150mm, with std. < 100 > flat
Wafer thickness:	.015" + / -.003"
Relevant Die Mechanical Dwg. Number	01-5231
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) : IRG4PC40K

Die Outline

NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
- CONTROLLING DIMENSION: (INCH).
- LETTER DESIGNATION:
S = SOURCE SK = SOURCE KELVIN
G = GATE IS = CURRENTSENSE
- 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)
- UNLESS OTHERWISE NOTED ALL DIE ARE GEN III

