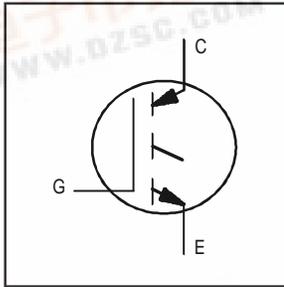


International  
**IR** Rectifier  
 IRG4CC58KB IGBT Die in Wafer Form

PD-91870

# IRG4CC58KB



600 V  
 Size 5.8  
 Ultra-Fast Speed  
 Short Circuit Rated  
 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., 6.5V Max.	$V_{GE} = V_{CE}, T_J = 25^\circ C, I_C = 1.0mA$
$I_{CES}$	Zero Gate Voltage Collector Current	200 $\mu A$ 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

Nominal Backmetal Composition, Thickness:	Cr-Ni V-Ag ( 1kA°-2kA°-2.5kA° )
Nominal Front Metal Composition, Thickness:	99% Al, 1% Si (4 microns)
Dimensions:	.288" x .288"
Wafer Diameter:	150mm, with std. < 100 > flat
Wafer thickness:	.015" + / -.003"
Relevant Die Mechanical Dwg. Number	01-5348
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 ) : N/A

### Die Outline

NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
- CONTROLLING DIMENSION: [INCH].
- LETTER DESIGNATION:  
 S = SOURCE SK = SOURCE KELVIN E = EMITTER  
 G = GATE IS = CURRENTSENSE
- DIMENSIONAL TOLERANCES:  
 BONDING PADS:  
 WIDTH < [.0250] TOLERANCE = +/- [.0005]  
 & > 0.635 TOLERANCE = +/- 0.025  
 LENGTH > [.0250] TOLERANCE = +/- [.0010]  
 OVERALL DIE:  
 WIDTH < [1.270] TOLERANCE = +/- 0.102  
 & > 1.270 TOLERANCE = +/- 0.203  
 LENGTH > [.050] TOLERANCE = +/- [.008]
- UNLESS OTHERWISE NOTED ALL DIE ARE GEN III

