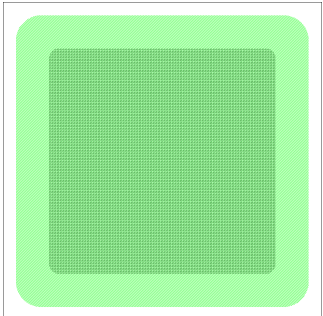


**SiC** Silicon-Carbide

**650V 15A Schottky Diode**

Bonding Pad Information	Chip Information	
	Die Size (With Scribe Line)	1,956μm x 1,956μm
	Anode Pad Size	1,405μm x 1,405μm
	Scribe Line Size	100μm
	Wafer Size	4inchs
	Wafer Thickness	160μm
	Gross Die	1,689ea
	Metallization	Front Side: Al/Cu : 4.0μm Back Side: Ti/Ni/Ag : 2.0μm

**Maximum Ratings (T<sub>c</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	650	V
Surge Peak Reverse Voltage	V <sub>RSM</sub>	650	V
DC Current @ T <sub>J</sub> =150°C	I <sub>F</sub>	15	A
Operating Junction and Storage Temperature Range	T <sub>J</sub>	-55 to 175	°C

**Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
DC Blocking Voltage	V <sub>R</sub>	I <sub>R</sub> =100uA, T <sub>J</sub> =25°C	650	800	-	V
		I <sub>R</sub> =100uA, T <sub>J</sub> =175°C	650	780	-	
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =15A, T <sub>J</sub> =25°C	-	1.4	1.7	V
		I <sub>F</sub> =15A, T <sub>J</sub> =150°C	-	1.8	2.2	
		I <sub>F</sub> =15A, T <sub>J</sub> =175°C	-	1.9	2.4	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =650V, T <sub>J</sub> =25°C	-	1.1	55	μA
		V <sub>R</sub> =650V, T <sub>J</sub> =150°C	-	11	110	
		V <sub>R</sub> =650V, T <sub>J</sub> =175°C	-	25	250	
Total Capacitive Charge	Q <sub>C</sub>	V <sub>R</sub> =400V, T <sub>J</sub> =25°C $Q_C = \int_0^{V_R} C(V) dV$	-	32	-	nC
Total Capacitance	C <sub>j</sub>	V <sub>R</sub> =0.1V, f=1MHz	-	600	-	pF
		V <sub>R</sub> =200V, f=1MHz	-	66	-	
		V <sub>R</sub> =400V, f=1MHz	-	56	-	