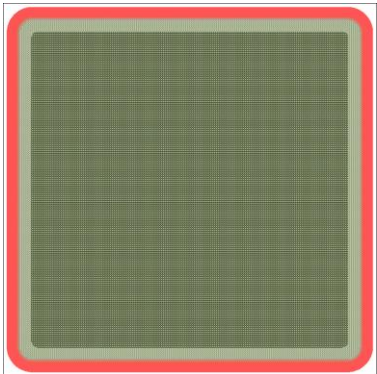


**SiC** Silicon-Carbide

**650V 30A Schottky Diode**

Bonding Pad Information		Chip Information	
		Die Size (With Scribe Line)	2,490μm x 2,490μm
		Anode Pad Size	1,940μm x 1,940μm
		Scribe Line Size	100μm
		Wafer Size	6inchs
		Wafer Thickness	180μm
		Gross Die	2,533ea
		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	I <sub>F</sub>	30	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	650	-	-	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20A, T <sub>J</sub> =25°C	-	1.3	1.6	V
		I <sub>F</sub> =20A, T <sub>J</sub> =175°C	-	1.7	-	
		I <sub>F</sub> =30A, T <sub>J</sub> =25°C	-	1.5	1.8	
		I <sub>F</sub> =30A, T <sub>J</sub> =175°C	-	1.9	-	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =650V, T <sub>J</sub> =25°C	-	3	50	μA
		V <sub>R</sub> =650V, T <sub>J</sub> =175°C	-	70	500	
Total Capacitive Charge	Q <sub>C</sub>	V <sub>R</sub> =400V, T <sub>J</sub> =25°C $Q_C = \int_0^{V_R} C(V) dV$	-	55	-	nC
Total Capacitance	C <sub>j</sub>	V <sub>R</sub> =400V, f=1MHz	-	84	-	pF

**NOTE:**

- I<sub>F</sub> evaluated by TO247-2L package type.
- The data tested by pulsed, pulse with ≤ 300us, duty cycle ≤ 2%.