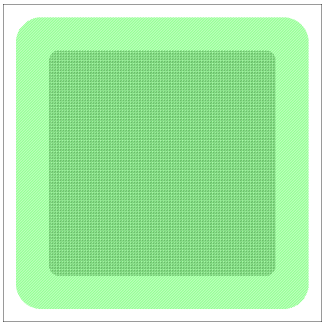
Wafer Specification Sheet H10A650V

SiC Silicon-Carbide 650V 10A Schottky Diode

Bonding Pad Information	Chip Information		
	Die Size (With Scribe Line)		1,651μm x 1,651μm
	Anode Pad Size		1,101μm x 1,101μm
	Scribe Line Size		100μm
	Wafer Size		4inchs
	Wafer Thickness		160μm
	Gross Die		2,402ea
	Metallization	Front Side	Al/Cu : 4.0μm
		Back Side	Ti/Ni/Ag : 2.0μm

Maximum Ratings (T_C=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	650	V
Surge Peak Reverse Voltage	V_{RSM}	650	V
DC Current @ T_J=150℃	I_F	10	A
Operating Junction and Storage Temperature Range	T_J	-55 to 175	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
DC Blocking Voltage	V_R	I_R=100uA, T_J =25°C	650	800	-	V
		I_R=100uA, T_J =175°C	650	785	-	
Forward Voltage	V_F	I_F=10A, T_J =25°C	-	1.4	1.7	V
		I_F=10A, T_J =150°C	-	1.8	2.2	
		I_F=10A, T_J =175°C	-	1.9	2.4	
Reverse Current	I_R	V_R=650V, T_J =25°C	-	1	50	μA
		V_R=650V, T_J =150°C	-	9	90	
		V_R=650V, T_J =175°C	-	20	200	
Total Capacitive Charge	Qc	V_R=400V, T_J =25°C $Q_C = \int_0^{V_R} C(V)dV$	-	22	-	nC
Total Capacitance	Cj	V_R=0.1V, f=1MHz	-	403	-	pF
		V_R=200V, f=1MHz	-	44	-	
		V_R=400V, f=1MHz	-	38	-	