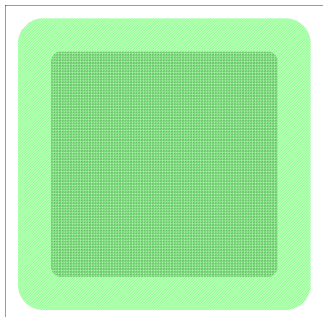


SiC Silicon-Carbide

650V 8A Schottky Diode

Bonding Pad Information		Chip Information	
	Die Size (With Scribe Line)		1,499μm x 1,499μm
	Anode Pad Size		949μm x 949μm
	Scribe Line Size		100μm
	Wafer Size		4inches
	Wafer Thickness		160μm
	Gross Die		2,918ea
	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°C	I _F	8	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	790	-	
Forward Voltage	V _F	I _F =8A, T _J =25°C	-	1.4	1.7	V
		I _F =8A, T _J =150°C	-	1.8	2.2	
		I _F =8A, T _J =175°C	-	1.9	2.4	
Reverse Current	I _R	V _R =650V, T _J =25°C	-	0.9	45	μA
		V _R =650V, T _J =150°C	-	7	70	
		V _R =650V, T _J =175°C	-	15	150	
Total Capacitive Charge	Q _C	V _R =400V, T _J =25°C $Q_C = \int_0^{V_R} C(V) dV$	-	17	-	nC
Total Capacitance	C _j	V _R =0.1V, f=1MHz	-	320	-	pF
		V _R =200V, f=1MHz	-	35	-	
		V _R =400V, f=1MHz	-	30	-	