SiC Silicon-Carbide

1200V 20A Schottky Diode

Bonding Pad Information	Chip Information			
	Die Size (With	n Scribe Line)	3,180µm x 3,180µm	
	Anode Pad Size		2,630µm x 2,630µm	
	Scribe Line Size		100µm	
	Wafer Size		4inchs	
	Wafer Thickness		160µm	
	Gross Die		621ea	
	Metallization	Front Side	Al/Cu : 4.0μm	
		Back Side	Ti/Ni/Ag : 2.0μm	

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	Vrrm	1200	V
Surge Peak Reverse Voltage	Vrsm	1200	V
DC Current @ TJ=150°C	lF	20	А
Operating Junction and Storage Temperature Range	TJ	-55 to 175	°C

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

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Unit
DC Blocking Voltage	Vr	IR=100uA, TJ =25°C	1200	-	-	V
Forward Voltage	VF	IF=20A, TJ =25°C	-	1.4	1.8	V
		IF=20A, TJ =150°C	-	1.8	2.2	
		IF=20A, TJ =175°C	-	2.0	2.4	
Reverse Current		VR=1200V, TJ =25°C	-	5	120	μА
	lr	VR=1200V, TJ =150°C	-	30	250	
		VR=1200V, TJ =175°C	-	60	500	
Total Capacitive Charge	Qc	VR=800V, TJ =25°C $Q_C = \int_0^{V_g} C(V) dV$	-	92	1	nC
Total Capacitance	Cj	VR=800V, f=1MHz	-	73	-	pF