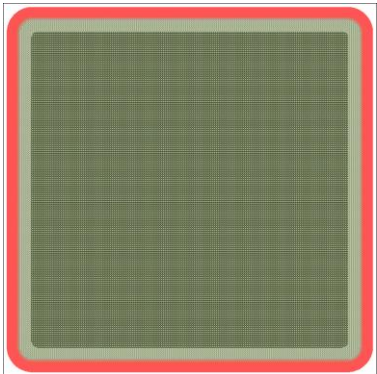


SiC Silicon-Carbide

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_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	I _F	15	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	650	-	-	V
Forward Voltage	V _F	I _F =8A, T _J =25°C	-	1.2	1.5	V
		I _F =8A, T _J =175°C	-	1.4	-	
		I _F =15A, T _J =25°C	-	1.4	1.7	
		I _F =15A, T _J =175°C	-	1.9	-	
Reverse Current	I _R	V _R =650V, T _J =25°C	-	1.1	55	μA
		V _R =650V, T _J =175°C	-	25	250	
Total Capacitive Charge	Q _C	V _R =400V, T _J =25°C $Q_C = \int_0^{V_R} C(V) dV$	-	32	-	nC
Total Capacitance	C _j	V _R =400V, f=1MHz	-	56	-	pF

NOTE:

- I_F evaluated by TO247-2L package type.
- The data tested by pulsed, pulse with ≤ 300us, duty cycle ≤ 2%.