



## High Voltage Trench Schottky Diode

## FEATURES

- Trench MOS Schottky technology
- Die in 6" Wafer Form
- 80V, 15A\*
- $V_F=0.58V(\text{typ.})^{**}$

Electrical Characteristics (T<sub>j</sub>=25°C)

Parameter	Description	Min.	Typ.	Max.	Unit	Test Condition
V <sub>RRM</sub>	Maximum repetitive peak reverse voltage	80	91	—	V	I <sub>R</sub> = 500μA
V <sub>F</sub>	Static Forward Voltage	—	0.37	0.42	V	I <sub>F</sub> = 1A
		—	0.50	0.54	V	I <sub>F</sub> = 8A
		—	0.58	0.63	V	I <sub>F</sub> = 15A
I <sub>R</sub> <sup>***</sup>	Cathode-To-Anode Leakage Current	—	16	50	μA	V <sub>R</sub> = 80V
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature Range	-55°C to 150°C Max				
*** Pulse width < 300 uS, Duty cycle < 2%						

## Mechanical Data

Parameter	Value	Unit	CHIP DRAWING (Scribe Line is Excluded)
Die Size	2592×2592	μm <sup>2</sup>	
Source Pad Size	1800 × 1800	μm <sup>2</sup>	
Scribe Line Size	60	μm	
Wafer Diameter	6	in	
Wafer Thickness	250	μm	
Estimated Gross Die	2372(Yield>97%)		
Anode Metal Thickness	Al\Ti\ Ni\Ag (2.8um\0.1um\0.2um\1.8um)		
Cathode Metal Thickness	Ti\Ni\Ag (0.2um\0.3um\2um)		
Recommended Storage Environment	Store in original container, in dry nitrogen, < 6 months at an ambient temperature of 23°C±3°C >		

\* Electrical characteristics are reported for the reference packaged part (TO-220) and can not be guaranteed in die sales form.

\*\* Electrical characteristics are reported for the bare die. Variations in customer packaging materials, dimensions and processes may affect parametric performance.