



NCD30S20W

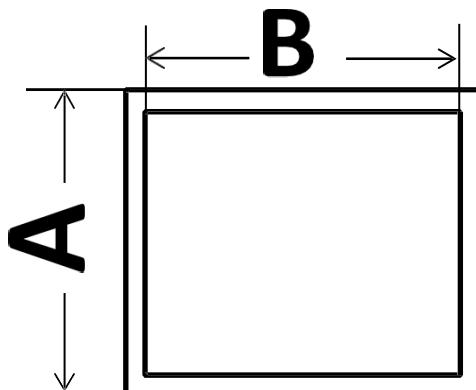
MOS-CONTROLLED RECTIFIER

Maximum Ratings(Per Leg) @ $T_A=25^\circ\text{C}$ (unless otherwise specified)

Parameter	Symbol	Ratings	Units
Working Peak Reverse Voltage	V_{RWM}	300	V
Average Rectified Forward	$I_{F(AV)}$	20.0	A
Non-repetitive Peak Surge Current (8.3ms,half sine wave)	I_{FSM}	200	A
Rated load (JEDEC METHOD)			
Operating Junction Temperature	T_J	175	$^\circ\text{C}$
Peak Repetitive Reverse Surge Current @2.0us, $f=1\text{KHz.}$, $T_J < 175^\circ\text{C}$	I_{RRM}	2.5	A
Voltage Rate of Change	dv/dt	10	V/ μs

Electrical Characteristics @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Breakdown Voltage	V_{BR}	$I_R = 250\mu\text{A}$	300	-	-	V
Forward Voltage Drop	V_F	$I_F = 10\text{A}$	-	-	0.88	V
		$I_F = 20\text{A}$	-	-	0.95	V
Reverse Leakage Current	I_R	$T_A = 25^\circ\text{C}$, $V_R = 300\text{V}$	-	-	10	μA
		$T_A = 150^\circ\text{C}$, $V_R = 300\text{V}$	-	-	5	mA



Item	Information
Die Size (A)	2620 μm 2620 μm
Active Die Size (B)	2540 μm 2540 μm
Wafer Size	8"
Gross Die	4050
Top Metal	Al 5 μm
Back Metal	Ag
Scribe Line Width	40 μm
Wafer Thickness	200 μm