

HSM200R600

600V N Channel MOSFETs Wafer Datasheet



Die Description

Parameter	Parameter	Rating	CHIP DRAWING
Die Size (with SL)	850 X 842	um ²	
Gate Pad Size	85 X 85		
Source Pad Size	155 X 218		
Scribe Line Size	60	um	
Wafer size	200	mm	
Wafer Thickness	10	mil	
Metallization	4um , Al-Cu (0.5%)		
Back Metallization	Ti/Ni/Ag , 1/3/10KA		
Gate Bond Wire	0.8 mil Au/Cu x 1		
Source Bond Wire	0.8 mil Au/Cu x 1		
Estimated Gross Die	40,000		

Absolute Maximum Ratings $T_c=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Rating	Unit
V_{DSS}	Drain-Source Voltage	600V	V
V_{GSS}	Gate-Source Voltage	$\pm 30\text{V}$	V
T_J	Operating Junction Temperature Range	-50 to 150 $^{\circ}\text{C}$	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-50 to 150 $^{\circ}\text{C}$	$^{\circ}\text{C}$

Electrical Characteristics ($T_J=25^{\circ}\text{C}$, unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0\text{V}$, $I_D=250\mu\text{A}$	600	---	---	V
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=600\text{V}$, $V_{GS}=0\text{V}$, $T_J=25^{\circ}\text{C}$	---	---	1	μA
		$V_{DS}=480\text{V}$, $V_{GS}=0\text{V}$, $T_J=85^{\circ}\text{C}$	---	---	10	μA
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 30\text{V}$, $V_{DS}=0\text{V}$	---	---	± 100	nA
$R_{DS(ON)}$	Static Drain-Source On-Resistance	$V_{GS}=10\text{V}$, $I_D=0.2\text{A}$	---	120	200	
$V_{GS(th)}$	Gate Threshold Voltage	$V_{GS}=V_{DS}$, $I_D=250\mu\text{A}$	1.5	2.4	3.5	V

Note : 1. The data tested by pulsed , pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
 2. $R_{DS(ON)}$ calculated by SOT23 Package Type