



-100V P Channel Enhancement MOSFET Wafer Datasheet

FEATURES

- P-Channel,-100V
- $R_{DS(ON)} = 50\text{m}\Omega$ (Typ.)@ $V_{GS}=-10\text{V}$
- Exceptional on-resistance and maximum DC current capability
high density cell design for extremely low RDS(ON)



Bonding Pad Information	Chip Information
(2900,1800) 	Wafer Name DC6M100P050M7
	Wafer Diameter 6 inches
	Wafer Thickness 7 mils
	Front-side Metallization Al/Si/Cu (4um)
	Back-side Metallization Ti/Ni/Ag
	Bonding Type Gate: 1.5mil Cu x 1 Source: 40x6mil Al Ribbon x 2
	Die Size (without scribe line) 2900um x 1800um
	Scribe Line Width 60um
	Gate Pad Size 300um x 300um
	Gross Die 2.8K ea

ABSOLUTE MAXIMUM RATINGS ($T_c=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	-100	V
Gate-Source Voltage	V_{GS}	± 20	V
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0\text{V}, I_D=-250\mu\text{A}$	-100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-80\text{V}, V_{GS}=0\text{V}$			-1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu\text{A}$	-1.0	-1.9	-2.5	V
Drain-Source On-State Resistance	$R_{DS(ON)}$	$V_{GS}=-10\text{V}, I_D=-1\text{A}$		50	62	m ohm
		$V_{GS}=-4.5\text{V}, I_D=-1\text{A}$		54	68	m ohm

Notes:

- 1.Pulse Test:Pulse Width $\leq 300\text{us}$, Duty Cycle $\leq 2\%$.
- 2.RDS(ON) calculated by TO-220 Package Type.