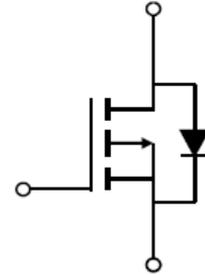




## 60V P-Channel Trench MOSFET

### FEATURES

- -6V, -1A\*, P-channel
- $R_{DS(on)} = 400m\Omega$  (Max.)
- Ultra low  $Q_{gd}$
- 100% avalanche tested



Electrical Characteristic $T_J = 25^\circ\text{C}$ , unless otherwise noted						
Parameter	Symbol	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
<b>Static</b>						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-60	--	--	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -60V, V_{GS} = 0V, T_J = 25^\circ\text{C}$	--	--	-1	$\mu A$
		$V_{DS} = -60V, V_{GS} = 0V, T_J = 150^\circ\text{C}$	--	--	-100	
Gate-Source Leakage	$I_{GSS}$	$V_{GS} = \pm 20V$	--	--	$\pm 100$	nA
Gate-Source Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.0	--	-2.5	V
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -1A$	--	--	320	$m\Omega$
		$V_{GS} = -4.5V, I_D = -1A$	--	--	400	$m\Omega$
Body Diode Voltage	$V_{SD}$	$V_{GS} = 0V, I_{SD} = -1A$	--	--	-1.2	V
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55~+175				$^\circ\text{C}$

Chip Information		Back side: Drain
Wafer size	8inch (200mm)	
Die thickness	178 $\mu\text{m}$	
Top metal	Al/Cu (4 $\mu\text{m}$ )	
Back metal	Ti/Ni/Ag (1.4 $\mu\text{m}$ )	
Scribe line width	60 $\mu\text{m}$	
Die size (with scribe line)	560 $\mu\text{m}$ ×560 $\mu\text{m}$	
Gross die per wafer	95324	
Gate pad size	80 $\mu\text{m}$ ×80 $\mu\text{m}$	
Source pad size	418 $\mu\text{m}$ ×418 $\mu\text{m}$	



## Notice

1. Electrical characteristics are reported for the reference packaged part (TO-251) only. Variations in customer packaging materials, dimensions and processes may affect electrical and reliability performance.
2. Product must be handled in a class 10,000 or better-designated clean room environment.
3. Un-sawn wafers that have not been exposed to the air can be stored up to 12 months when in the original sealed packaging at room temperature (45%±15%RH controlled environment).
4. Sawn wafers and un-sawn wafers that have been exposed to the air are intended for immediate use and have a limited shelf life less than three months.
5. MOSFET is sensitive to the static electricity, and it is necessary to protect the device from being damaged by the static electricity when using it. Standard ESD precautions and safe work environments are as defined in MIL-HDBK-263.

## Disclaimer

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