

N-Channel Enhancement Power Mosfet Specification

Features

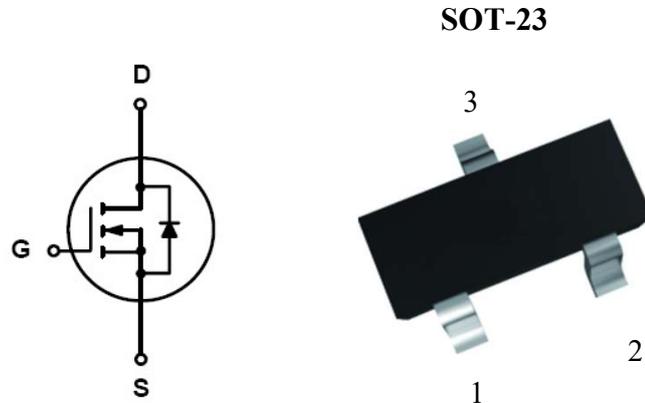
- Advanced trench cell design
- High speed switch

Applications

- Portable appliances
- Notebook/PC appliances
- Power Management
- DC/DC Converter

Quick reference

- $BV \cong 60\text{ V}$ $I_D=3\text{ A}$
- $R_{DS(ON)} \cong 90\text{ m}\Omega$ @ $V_{GS} = 10\text{ V}$
- $R_{DS(ON)} \cong 110\text{ m}\Omega$ @ $V_{GS} = 5\text{ V}$



1: Gate 2: Source 3: Drain

Limiting Values

Symbol	Parameter	Rating	Unit
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage	± 20	



● **Electrical Characteristics** (Ta = 25°C Unless Otherwise Noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS} = 0\text{ V}, I_{DS} = 250\ \mu\text{A}$	60	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}, I_{DS} = 250\ \mu\text{A}$	1.0	1.6	2.5	V
I_{DSS}	Drain Leakage Current	$V_{DS} = 48\text{ V}, V_{GS} = 0\text{ V}$	-	-	1	μA
		$T_J = 85\text{ }^\circ\text{C}$	-	-	30	μA
I_{GSS}	Gate Leakage Current	$V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$	-	-	± 100	nA
$R_{DS(ON)}^a$	On-State Resistance	$V_{GS} = 10\text{ V}, I_{DS} = 0.5\text{ A}$	-	-	90	m Ω
		$V_{GS} = 5\text{ V}, I_{DS} = 0.5\text{ A}$	-	-	110	
Diode Characteristics^b						
V_{SD}	Diode Forward Voltage	$I_{SD} = 0.5\text{ A}, V_{GS} = 0\text{ V}$	-	0.7	1.3	V

Notes :

This wafer must be stored at N2 box (RH<20 %).

Wafer must be completely assembled within two months.

a : CP measured on wafer by probe card. ($R_{DS(ON)}$ depended on packaged type and amount of bonding wires)

b : Pulse test ; pulse width $\leq 300\ \mu\text{s}$, duty cycle $\leq 2\%$

