

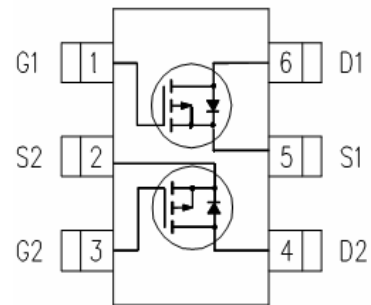
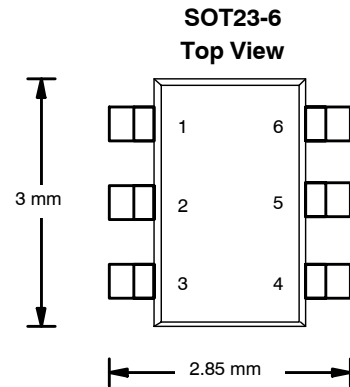
## P-Type 30-V Power MOSFET

### ◆ Features

- Advanced trench cell design
- Extremely low threshold voltage
- $V_D \leq -30\text{ V}$
- $R_{DS(ON)} \leq 54\text{ m}\Omega$  @  $V_{GS} = -10\text{ V}$
- $R_{DS(ON)} \leq 72\text{ m}\Omega$  @  $V_{GS} = -4.5\text{ V}$
- $R_{DS(ON)} \leq 120\text{ m}\Omega$  @  $V_{GS} = -2.5\text{ V}$

### ◆ Applications

- Portable appliances
- Battery management
- High speed switch



### ● Limiting Values

Symbol	Parameter	Rating	Unit
$V_{DSS}$	Drain-Source Voltage	- 30	V
$V_{GSS}$	Gate-Source Voltage	$\pm 12$	

### ● Electrical Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ Unless Otherwise Noted )

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS} = 0\text{ V}$ , $I_{DS} = -250\text{ }\mu\text{A}$	- 30	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}$ , $I_{DS} = -250\text{ }\mu\text{A}$	- 0.7	- 1	- 1.3	V
$I_{DSS}$	Drain Leakage Current	$V_{DS} = -24\text{ V}$ , $V_{GS} = 0\text{ V}$	-	-	- 1.0	$\mu\text{A}$
		$T_J = 85\text{ }^\circ\text{C}$	-	-	- 30	$\mu\text{A}$
$I_{GSS}$	Gate Leakage Current	$V_{GS} = \pm 12\text{ V}$ , $V_{DS} = 0\text{ V}$	-	-	$\pm 100$	nA
$R_{DS(ON)}^{a,c}$	On-State Resistance	$V_{GS} = -10\text{ V}$ , $I_{DS} = -0.5\text{ A}$	-	44	54	m $\Omega$
		$V_{GS} = -4.5\text{ V}$ , $I_{DS} = -0.5\text{ A}$	-	62	72	
		$V_{GS} = -2.5\text{ V}$ , $I_{DS} = -0.5\text{ A}$	-	98	120	
Diode Characteristics						
$V_{SD}$	Diode Forward Voltage	$I_{SD} = -1\text{ A}$ , $V_{GS} = 0\text{ V}$	-	- 0.7	- 0.95	V

Package Dimensions

