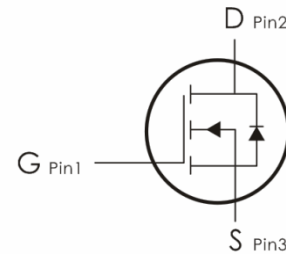
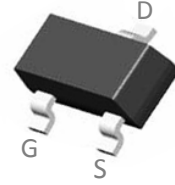


Description:

This N-Channel MOSFET uses advanced trench technology and design to provide excellent $R_{DS(on)}$ with low gate charge. It can be used in a wide variety of applications.

Features:

- 1) $V_{DS}=30V, I_D=5.8A, R_{DS(ON)} < 24m\ \Omega @ V_{GS}=10V$
- 2) Low gate charge.
- 3) Green device available.
- 4) Advanced high cell density trench technology for ultra $R_{DS(ON)}$.
- 5) Excellent package for good heat dissipation.



Absolute Maximum Ratings: ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Ratings	Units
V_{DS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	± 12	V
I_D	Continuous Drain Current- $T_A=25^\circ\text{C}$	5.8	A
	Continuous Drain Current- $T_A=70^\circ\text{C}$	4.9	
I_{DM}	Pulsed Drain Current	30	
P_D	Power Dissipation a.b	1.4	W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	$^\circ\text{C}$

Package Marking and Ordering Information:

Part NO.	Marking	Package
DO3400B	3400	SOT-23

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

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Off Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\ \mu\text{A}$	30	---	---	V
I_{DSS}	Zero Gate Voltage Drain Current	$V_{GS}=0V, V_{DS}=24V$	---	---	1	μA
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 12V, V_{DS}=0A$	---	---	± 0.1	μA
I_D	On-State Drain Current	$V_{GS}=4.5V, V_{DS}=5V$	30	---	---	A
On Characteristics						
$V_{GS(th)}$	GATE-Source Threshold Voltage	$V_{GS}=V_{DS}, I_D=250\ \mu\text{A}$	0.7	1	1.4	V
$R_{DS(on)}$	Drain-Source On Resistance	$V_{GS}=10V, I_D=5.8A$	---	18	24	$\text{m}\Omega$
		$V_{GS}=4.5V, I_D=5A$	---	22	30	
		$V_{GS}=2.5V, I_D=4A$	---	40	52	
G_{FS}	Forward Transconductance	$V_{DS}=5V, I_D=5A$	10	15	---	S
Dynamic Characteristics						
C_{iss}	Input Capacitance	$V_{DS}=15V, V_{GS}=0V, f=1\text{MHz}$	---	823	1030	pF
C_{oss}	Output Capacitance		---	99	---	
C_{rss}	Reverse Transfer Capacitance		---	77	---	
Switching Characteristics						
$t_{d(on)}$	Turn-On Delay Time	$V_{DS}=15V, R_L=2.7\Omega$ $V_{GS}=10V, R_G=3\Omega$	---	3.3	5	ns
t_r	Rise Time		---	4.8	7	ns
$t_{d(off)}$	Turn-Off Delay Time		---	26.3	40	ns
t_f	Fall Time		---	4.1	6	ns
Drain-Source Diode Characteristics						
V_{SD}	Source-Drain Diode Forward Voltage ²	$V_{GS}=0V, I_S=1A$	---	0.77	1	V

Electrical Characteristic Curve

