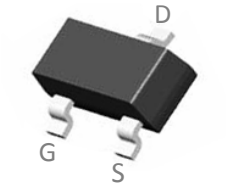
Description：

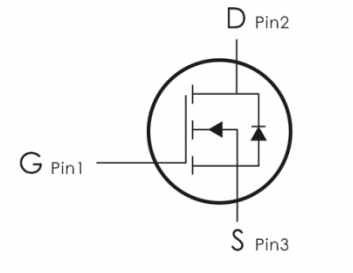
This N-Channel MOSFET uses advanced trench technology and design to provide excellent $R_{DS(on)}$ with low gate charge.

It can be used in a wide variety of applications.



Features：

1) V_{DS}=30V,I_D=6.5A,$R_{DS(ON)}$<24mΩ @V_{GS}=10V
2) Low gate charge.
3) Green device available.
4) Advanced high cell denity trench technology for ultra $R_{DS(ON)}$.
5) Excellent package for good heat dissipation.



Absolute Maximum Ratings：(T_C=25℃ unless otherwise noted)

Symbol	Parameter	Ratings	Units
V_{DS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Continuous Drain Current-	6.5	A
	Continuous Drain Current-TC=70℃	5.2	
I_{DM}	Pulsed Drain Current	34	
P_D	Power Dissipation	1.4	W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	℃

Package Marking and Ordering Information：

Part NO.	Marking	Package
DO3404BA	3404	SOT-23-3

Electrical Characteristics: (T_C=25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Off Characteristics						
BV_{DSS}	Drain-Sourtce Breakdown Voltage	V_{GS}=0V,I_D=250μA	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}=±20V, V_{DS}=0A	---	---	±100	nA
On Characteristics						
$V_{GS(th)}$	GATE-Source Threshold Voltage	V_{GS}=V_{DS}, I_D=250μA	1.2	1.6	2.5	V
$R_{DS(ON)}$	Drain-Source On Resistance	V_{GS}=10V,I_D=6.5A	---	20	24	mΩ
		V_{GS}=10V,I_D=6.5A,Tj=125℃	---	---	39	
		V_{GS}=4.5V,I_D=5A	---	27	34	
G_{FS}	Forward Transconductance[1]	V_{DS}=5V, I_D=5A	8.5	---	---	S
Dynamic Characteristics						
C_{iss}	Input Capacitance	V_{DS}=1V, V_{GS}=0V, f=1MHz	---	345	690	pF
C_{oss}	Output Capacitance		---	55	---	
C_{rss}	Reverse Transfer Capacitance		---	32	---	
Switching Characteristics						
$t_{d(on)}$	Turn-On Delay Time	V_{GS}=10V R_L=2.7Ω V_{DS}=15V R_{GEN}=6Ω	---	2.8	---	ns
t_r	Rise Time		---	7.2	---	ns
$t_{d(off)}$	Turn-Off Delay Time		---	15.8	---	ns
t_f	Fall Time		---	4.6	---	ns
Drain-Source Diode Characteristics						
V_{SD}	Source-Drain Diode Forward Voltage[2]	V_{GS}=0V,I_S=1A	---	0.77	1	V