SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

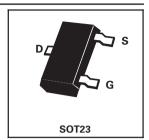
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FEATURES

- * 200 Volt V_{DS}
- * $R_{DS(on)} = 25\Omega$

PARTMARKING DETAIL - MU



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V _{DS}	200	V
Continuous Drain Current at T _{amb} =25°C	I _D	60	mA
Pulsed Drain Current	I _{DM}	1	Α
Gate-Source Voltage	V _{GS}	± 20	V
Power Dissipation at T _{amb} =25°C	P _{tot}	330	mW
Operating and Storage Temperature Range	T _j :T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.	
Drain-Source Breakdown Voltage	BV _{DSS}	200		V	I _D =1mA, V _{GS} =0V	
Gate-Source Threshold Voltage	V _{GS(th)}	1.0	3.0	V	$I_D=1mA$, $V_{DS}=V_{GS}$	
Gate-Body Leakage	I _{GSS}		100	nA	V_{GS} =± 20V, V_{DS} =0V	
Zero Gate Voltage Drain Current	I _{DSS}		10 50	μ Α μ Α	V_{DS} =200V, V_{GS} =0V V_{DS} =160V, V_{GS} =0V, T=125°C(2)	
On-State Drain Current(1)	I _{D(on)}	250		mA	V _{DS} =25V, V _{GS} =10V	
Static Drain-Source On-State Resistance (1)	R _{DS(on)}		25	Ω	$V_{GS}=10V,I_D=100mA$	
Forward Transconductance(1) (2)	g _{fs}	75		mS	V _{DS} =25V,I _D =100mA	
Input Capacitance (2)	C _{iss}		45	pF	V _{DS} =25V, V _{GS} =0V, f=1MHz	
Common Source Output Capacitance (2)	C _{oss}		18	pF		
Reverse Transfer Capacitance (2)	C _{rss}		5	pF		
Turn-On Delay Time (2)(3)	t _{d(on)}		5	ns	V _{DD} ≈25V, I _D =100mA	
Rise Time (2)(3)	t _r		7	ns		
Turn-Off Delay Time (2)(3)	t _{d(off)}		6	ns		
Fall Time (2)(3)	t _f		6	ns		

- (1) Measured under pulsed conditions. Width=300µs. Duty cycle ≤2% (2) Sample test.
- (3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator