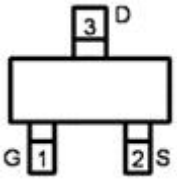
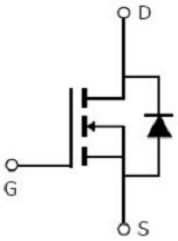
V_{DSS}	100V
R_{DS}(on)	220mΩ(typ)
I_D	3A





Advanced MOSFET process technology
Special designed for PWM, load switching and general purpose applications
Ultra low on-resistance with low gate charge
Fast switching and reverse body recovery
150 operating temperature

It utilizes the latest trench processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avabl someine

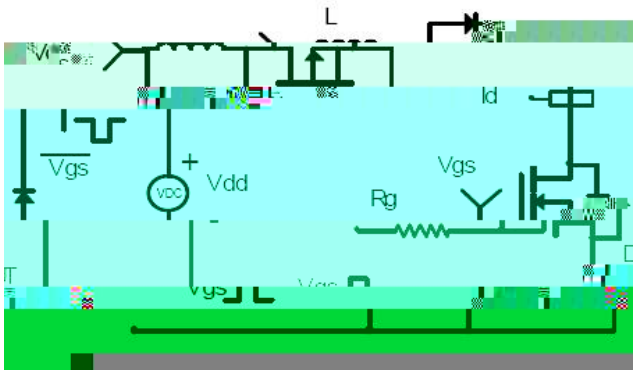
I_D @ T_C = 25°C	Continuous Drain Current, V_{GS} @ 10V	3	A
I_D @ T_C = 100°C	Continuous Drain Current, V_{GS} @ 10V	2	
I_{DM}	Pulsed Drain Current	12	
P_D @TC = 25°C	Power Dissipation	2.3	W
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-to-Source Voltage	± 20	V
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to + 150	°C

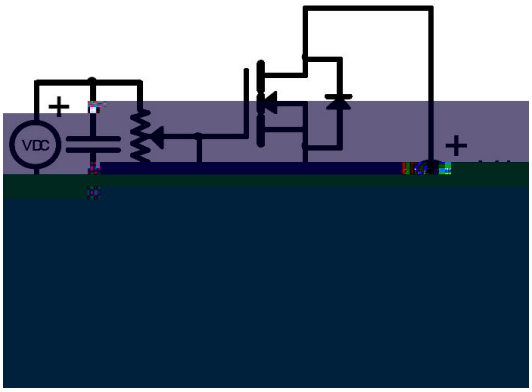
$R_{\theta JA}$	Junction-to-Ambient ( )	—	54	/W

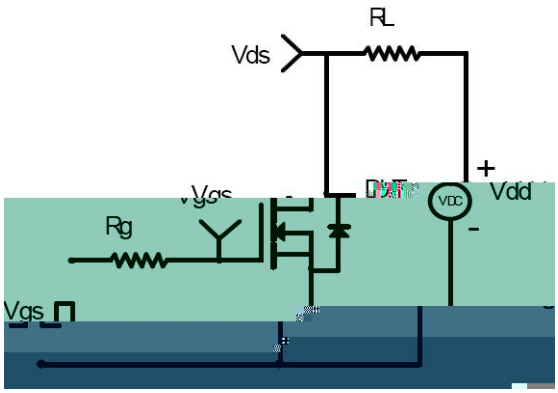
@T_A=25 unless otherwise specified

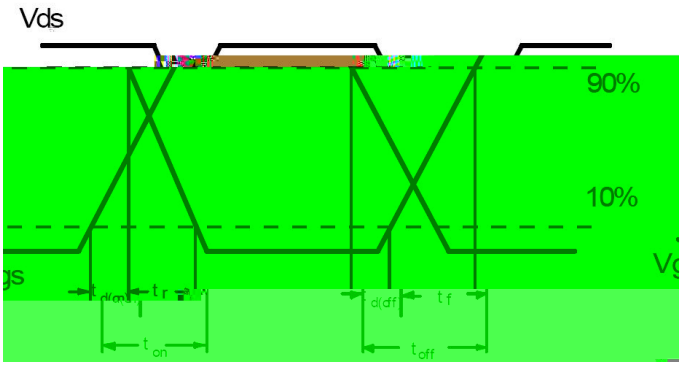
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	100	—	—	V	V_{GS} = 0V, I_D = 250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	220	286	mΩ	V_{GS}=10V,I_D = 2A
		—	250	325		V_{GS}=4.5V,I_D = 1A
$V_{GS(th)}$	Gate threshold voltage	1	—	2.5	V	V_{DS} = V_{GS}, I_D = 250μA
I_{DSS}	Drain-to-Source leakage current	—	—	1	μA	V_{DS} =100V, V_{GS} =0V
I_{GSS}	Gate-to-Source forward leakage	—	—	100	nA	V_{GS} =20V
	Gate-to-Source reverse leakage	—	—	-100		V_{GS} = -20V
Q_g	Total gate charge	—	5.4	—	nC	I_D = 2A
Q_{gs}	Gate-to-Source charge	—	1.4	—		V_{DD}=30V
Q_{gd}	Gate-to-Drain("Miller") charge	—	1.9	—		V_{GS} = 10V
$t_{d(on)}$	Turn-on delay time	—	15	—	nS	V_{GS}=10V,
t_r	Rise time	—	55	—		V_{DS} =30V,
$t_{d(off)}$	Turn-Off delay time	—	19	—		R_{GEN}=3Ω
t_f	Fall time	—	12	—		I_D =1A
C_{iss}	Input capacitance	—	322	—	pF	V_{GS} = 0V
C_{oss}	Output capacitance	—	22	—		V_{DS} = 25V
C_{rss}	Reverse transfer capacitance	—	16	—		f =1MHz

I_S	Continuous Source Current (Body Diode)	—	—	3	A	MOSFET symbol Showing the integral reverse p-n junction diode. 
I_{SM}	Pulsed Source Current (Body Diode)	—	—	12	A	
V_{SD}	Diode Forward Voltage	—	—	1.2	V	I_S=3A, V_{GS}=0V,T_J= 25°C









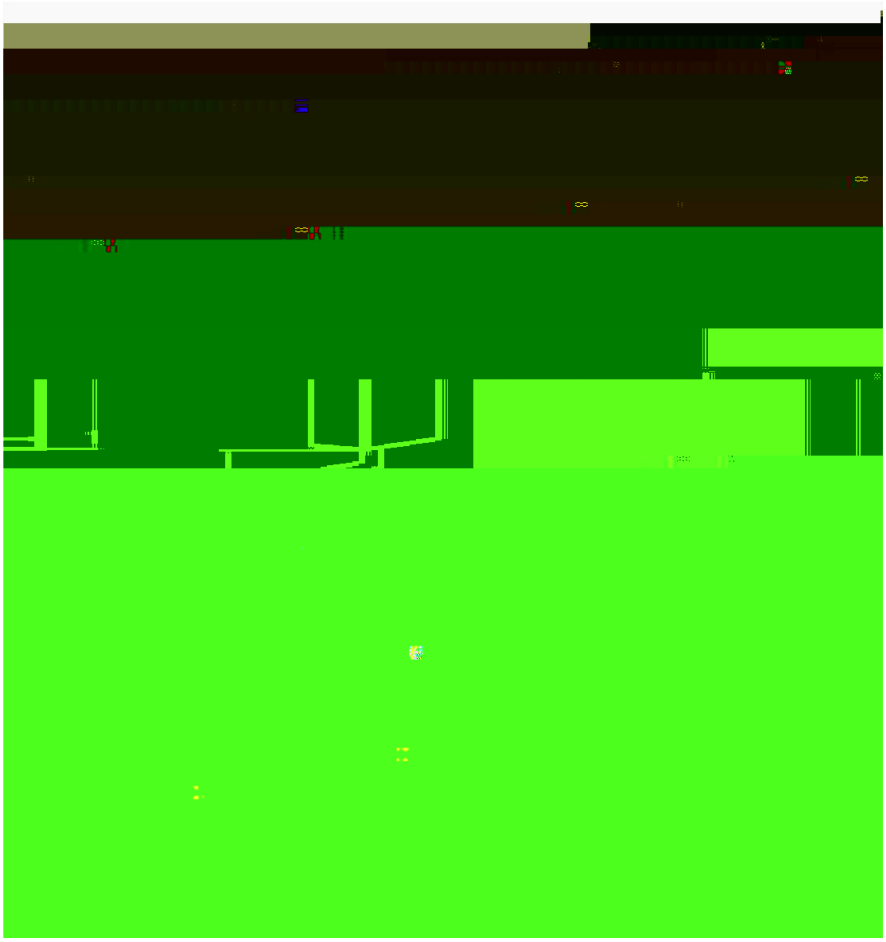
Calculated continuous current based on maximum allowable junction temperature.

Repetitive rating; pulse width limited by max. junction temperature.

The power dissipation P_D is based on max. junction temperature, using junction-to-case thermal resistance.

The value of $R_{\theta JA}$ is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_A =25°C

SOT-23 PACKAGE OUTLINE DIMENSION



Dimension In Millimeters		Dimension In Inches	
0.800	1.150	0.031	0.045
0.000	0.100	0.000	0.004
0.020		0.300	0.500	0.012
		0.080	0.150	0.003
0.079		e1	1.800	2.000	0.071
EF		L	0.55REF		0.022R
0.020		L1	0.300	0.500	0.012
8^0		θ	0^0	8^0	0^0

- Any and all Silikron products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your Silikron representative nearest you before using any Silikron products described or contained herein in such applications.
- Silikron assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all Silikron products described or contained herein.
- Specifications of any and all Silikron products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- Silikron Microelectronics (Suzhou) Co.,Ltd. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all Silikron products(including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of Silikron Microelectronics (Suzhou) Co.,Ltd.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. Silikron believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the Silikron product that you intend to use.