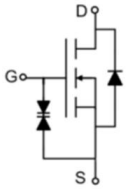
V_{DSS}	20V
R_{DS}(on)	12.3mΩ(typ.)
I_D	7.2A



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

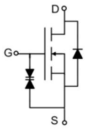
It utilizes the latest processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avalanche rating. These features combine to make this design an extremely efficient and reliable device for use in power switching application and a wide variety of other applications.

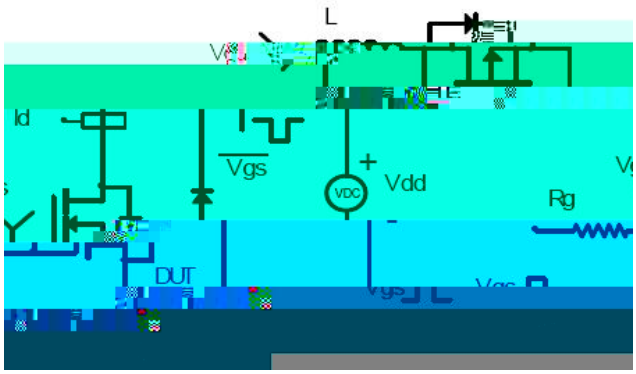
I_D @ T_A = 25°C	Continuous Drain Current, V_{GS} @ 10V①	7.2	A
I_{DM}	Pulsed Drain Current②	28.8	
P_D @T_A = 25°C	Power Dissipation③	1.34	W
V_{DS}	Drain-Source Voltage	20	V
V_{GS}	Gate-to-Source Voltage	± 10	V
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

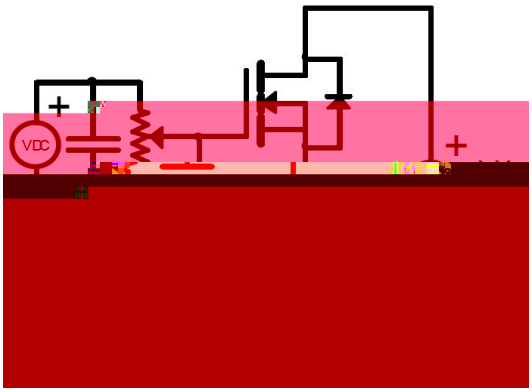
$R_{\theta JA}$	Junction-to-Ambient④	—	93	℃/W

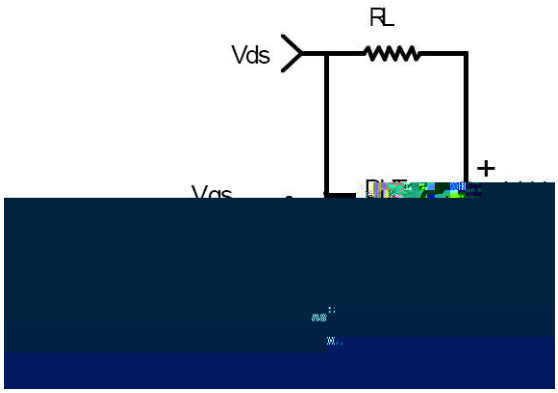
@T_A=25℃unless otherwise specified

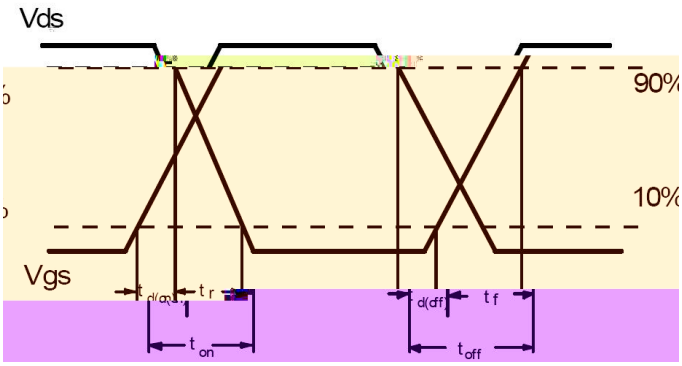
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	20	—	—	V	V_{GS} = 0V, I_D = 250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	12.3	16	mΩ	V_{GS}=4.5V,I_D =5A
		—	15.6	20.7	mΩ	V_{GS}=2.5V,I_D =4A
$V_{GS(th)}$	Gate threshold voltage	0.5	—	1	V	V_{DS} = V_{GS}, I_D =250μA
I_{DSS}	Drain-to-Source leakage current	—	—	1	μA	V_{DS} =20V,V_{GS} = 0V
I_{GSS}	Gate-to-Source forward leakage	—	—	±10	μA	V_{GS}=±10V,V_{DS}=0V
Q_g	Total gate charge	—	9	—	nC	I_D = 5A,
Q_{gs}	Gate-to-Source charge	—	1.5	—		V_{DS}=10V,
Q_{gd}	Gate-to-Drain("Miller") charge	—	2.1	—		V_{GS} = 4.5V
$t_{d(on)}$	Turn-on delay time	—	12	—	ns	V_{GS}=4.5V, V_{DS}=10V, R_{GEN}=3Ω R_L=2Ω
t_r	Rise time	—	35	—		
$t_{d(off)}$	Turn-Off delay time	—	56	—		
t_f	Fall time	—	52	—		
C_{iss}	Input capacitance	—	672	—	pF	V_{GS} = 0V
C_{oss}	Output capacitance	—	152	—		V_{DS} = 10V
C_{rss}	Reverse transfer capacitance	—	91	—		f = 1MHz

I_S	Continuous Source Current (Body Diode)	—	—	7.2	A	MOSFET symbol showing the integral reverse p-n junction diode. 
I_{SM}	Pulsed Source Current (Body Diode)	—	—	28.8	A	
V_{SD}	Diode Forward Voltage	—	—	1.2	V	I_S=5A, V_{GS}=0V









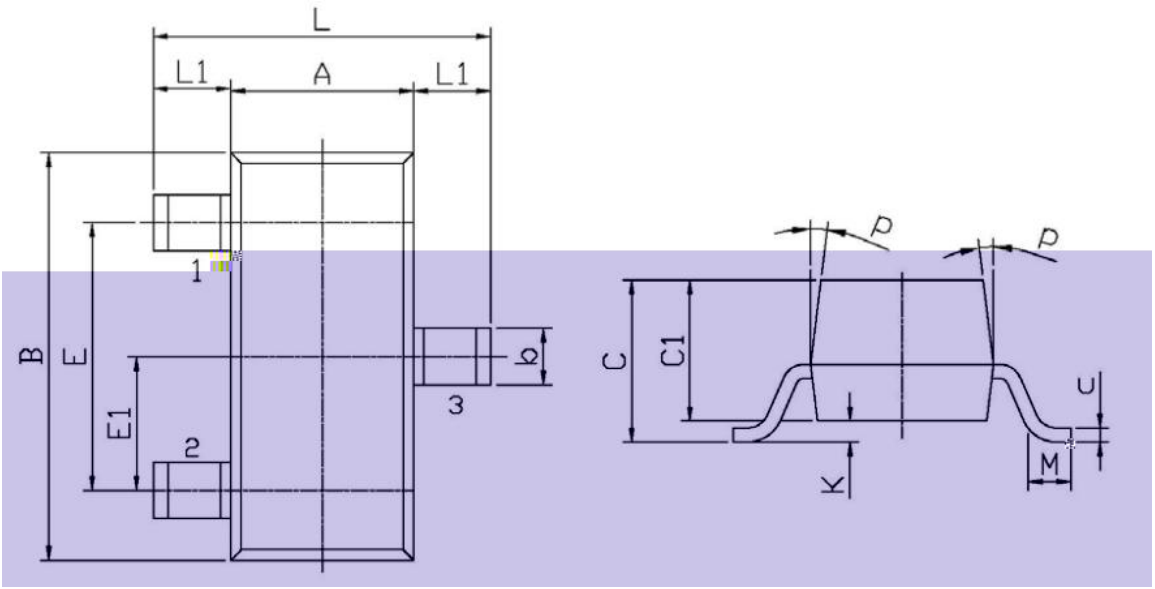
①Calculated continuous current based on maximum allowable junction temperature.

②Repetitive rating; pulse width limited by max. junction temperature.

③The power dissipation P_D is based on max. junction temperature, using junction-to-case thermal resistance.

④The 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 ℃.

:



Symbol	Dimensions in Millimeter		Symbol	Dimensions in Millimeter	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30 Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20 Min	
E1	0.85	1.05	P	7º	
b	0.35	0.55			

- 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 fir[illegible] that could ca[illegible] damage to other property. When designing equipment, adopt safety measures so that these [illegible]ds of accide[illegible] events cannot occur. Such measures include but are not limited to protective circuits and err[illegible]revention c[illegible]uit for safe design, redundant design, and structural design.
- In the event that any or all Silikron products(including technical data, services) described or cont[illegible]d here[illegible]re controlled under any of applicable local export control laws and regulations, such products mus[illegible]t be e[illegible]orted without obtaining the export license from the authorities concerned in accordance with the above[illegible]w.
- No part of this publication may be reproduced or transmitted in any form or by any means, electron[illegible]r m[illegible]anical, including photocopying and recording, or any information storage or retrieval system, or otherwise[illegible]t 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 reliabl[illegible]te