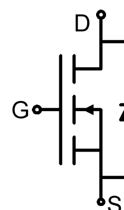
SILKRON

V_{DSS}	20V
$R_{DS}(on)$	131mΩ(typ.)
I_D	1A



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

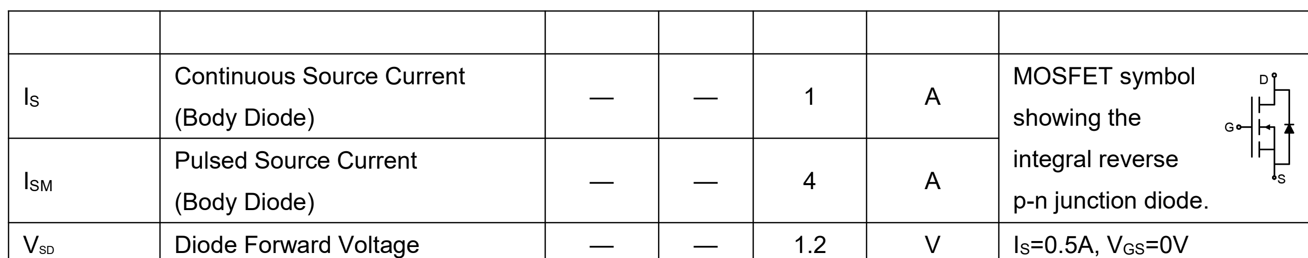
It utilizes the latest processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avalanche rating. These features combine to make this design an extremely efficient and reliable device for use in power switching application and a wide variety of other applications.

I_D @ T_A = 25°C	Continuous Drain Current, V_{GS} @ 10V	1	A
I_D @ T_A = 100°C	Continuous Drain Current, V_{GS} @ 10V	0.7	
I_{DM}	Pulsed Drain Current	4	
P_D @T_A = 25°C	Power Dissipation	0.23	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

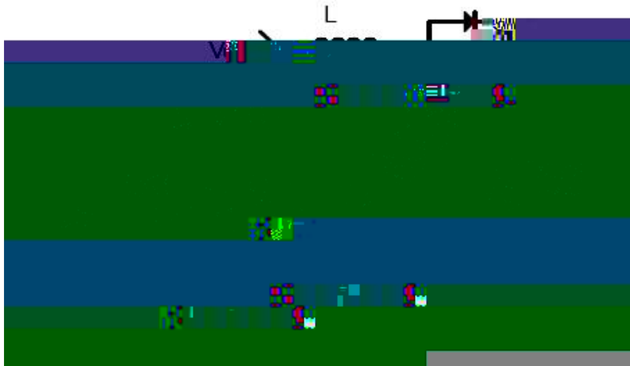
$R_{\theta JA}$	Junction-to-Ambient	—	543	/W

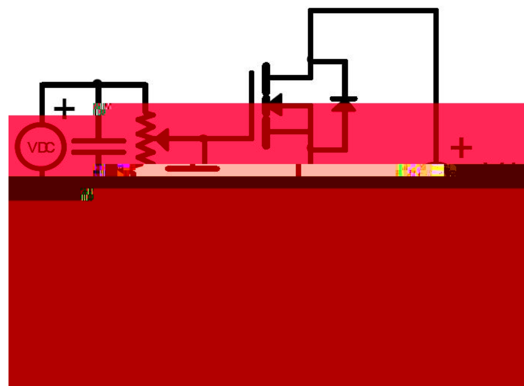
@T_J=25 unless otherwise specified

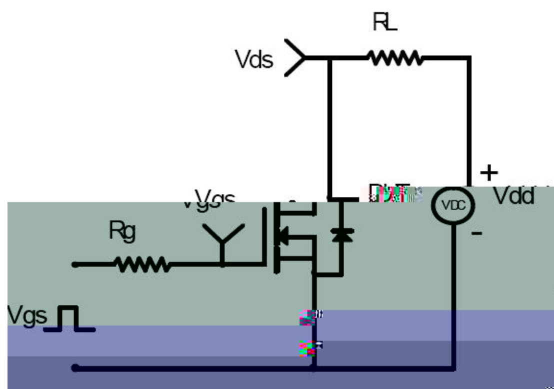
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	20	—	—	V	V_{GS} = 0V, I_D = 250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	131	170	mΩ	V_{GS}=4.5V,I_D =0.5A
		—	190	247	mΩ	V_{GS}=2.5V,I_D =0.3A
$V_{GS(th)}$	Gate threshold voltage	0.4	—	1	V	V_{DS} = V_{GS}, I_D =250μA
I_{DSS}	Drain-to-Source 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	—	1.1	—	nC	I_D = 0.9A, V_{DS}=10V, V_{GS} = 4.5V
Q_{gs}	Gate-to-Source charge	—	0.27	—		
Q_{gd}	Gate-to-Drain("Miller") charge	—	0.21	—		
$t_{d(on)}$	Turn-on delay time	—	2	—	ns	V_{GS}=4.5V, V_{DS}=10V, R_{GEN}=10Ω, I_D = 0.5A
t_r	Rise time	—	20	—		
$t_{d(off)}$	Turn-Off delay time	—	11	—		
t_f	Fall time	—	24	—		
C_{iss}	Input capacitance	—	61	—	pF	V_{GS} = 0V, V_{DS} = 10V, f = 1MHz
C_{oss}	Output capacitance	—	21	—		
C_{rss}	Reverse transfer capacitance	—	13	—		

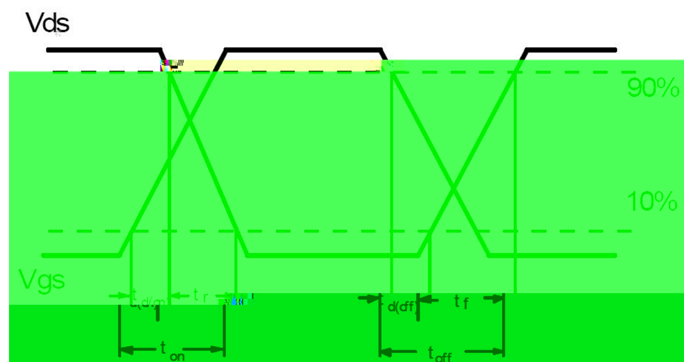


I_S	Continuous Source Current (Body Diode)	—	—	1	A	MOSFET symbol showing the integral reverse p-n junction diode.
I_{SM}	Pulsed Source Current (Body Diode)	—	—	4	A	
V_{SD}	Diode Forward Voltage	—	—	1.2	V	I_S=0.5A, V_{GS}=0V







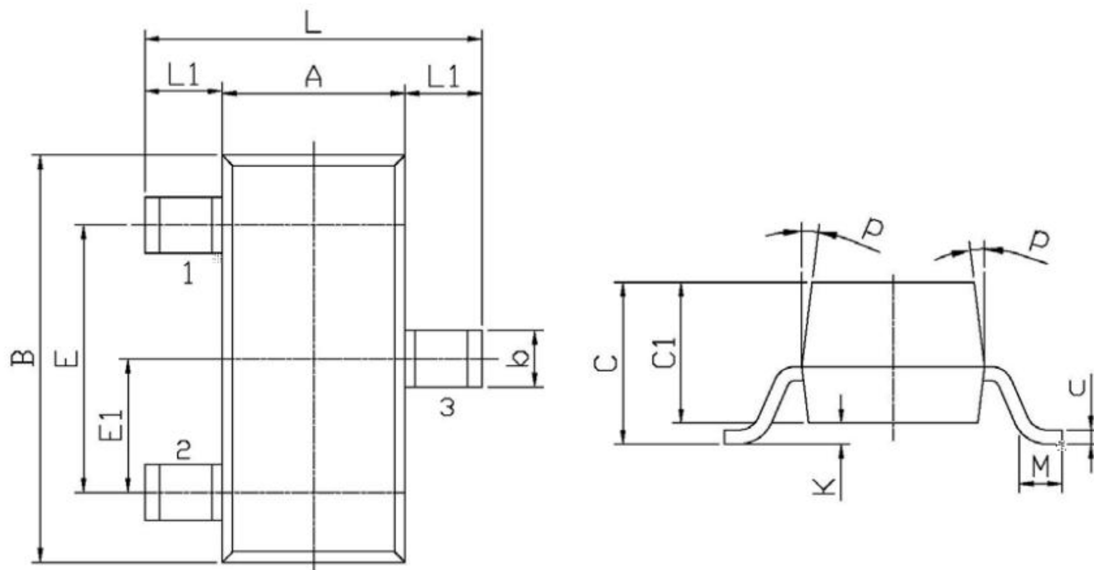


Calculated continuous current based on maximum allowable junction temperature.

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



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			