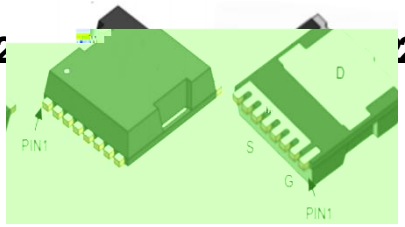
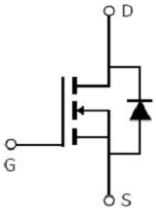
2 2

2222 

2222



2

2 2 2

- ■
- ■
- ■ -
- ■
- ■

-

2 2

Symbol	Parameter	Max.	Units
I_D @ T_C = 25°C	Continuous Drain Current, V_{GS} @ 10V	224	A
I_D @ T_C = 100°C	Continuous Drain Current, V_{GS} @ 10V	141	
I_{DM}	Pulsed Drain Current	896	
P_D @T_C = 25°C	Power Dissipation	208	W
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-to-Source Voltage	± 20	V
E_{AS}	Single Pulse Avalanche Energy @ L=0.5mH	795	mJ
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

2

Symbol	Characterizes	Typ.	Max.	Units
	Junction-to-case			
	Junction-to-ambient (t ≤ 10s)			

2 2

Symbol	Parameter	Min.	Typ.	Max.	Units	Conditions
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	100			V	V_{GS} = 0V, I_D
$R_{DS(on)}$	Static Drain-to-Source on-resistance		1.8	3	m	V_{GS}=10V,I_D = 50A
$V_{GS(th)}$	Gate threshold voltage	2		4	V	V_{DS} = V_{GS}, I_D
I_{DSS}	Drain-to-Source leakage current			1		V_{DS} = 100V,V_{GS} = 0V
I_{GSS}	Gate-to-Source forward leakage			100	nA	V_{GS} =20V
				-100		V_{GS} = -20V
C_{iss}	Input capacitance		6209		pF	V_{GS} = 0V
C_{oss}	Output capacitance		2570			V_{DS} = 50V
C_{rss}	Reverse transfer capacitance		67			100kHz
Q_g	Total gate charge					

2 2 2

2 2 22222222222222222222222222222222222 2 2 2

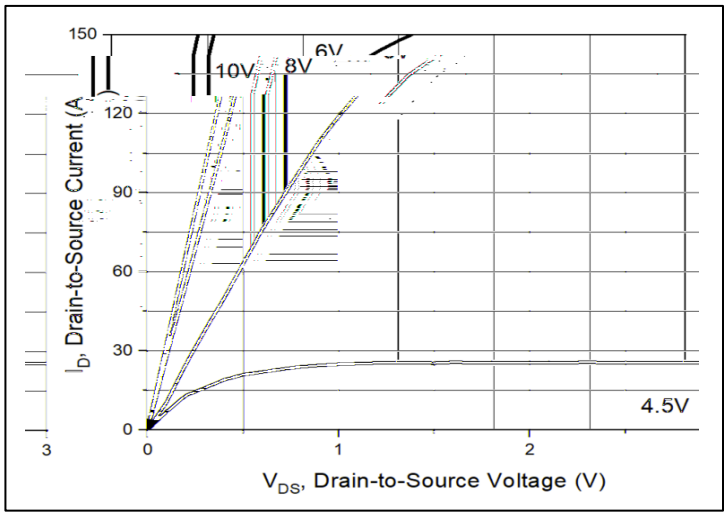
22222222222222222222222222222222222222

2 2 2 222222222222222222222222 2

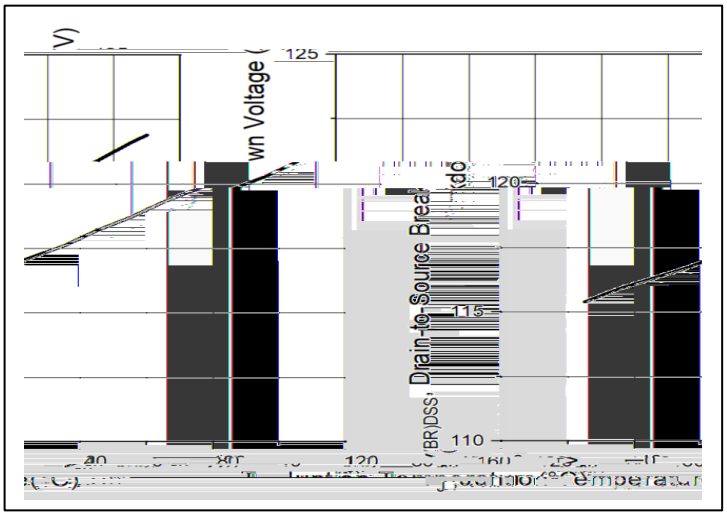
Calculated continuous current based on maximum allowable junction temperature.
Repetitive rating; pulse width limited by max. junction temperature.
The power dissipation P_D is based on max. junction temperature, using junction-to-case thermal resistance.
The value of is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_A

[redacted]

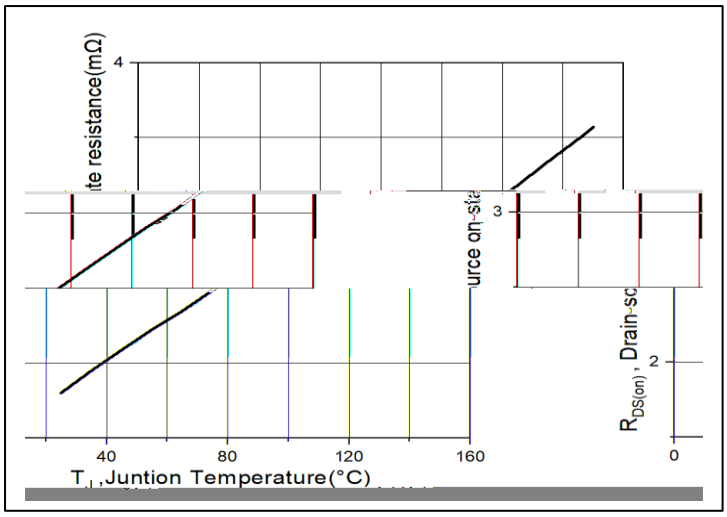
Typical Electrical and Thermal Characteristics



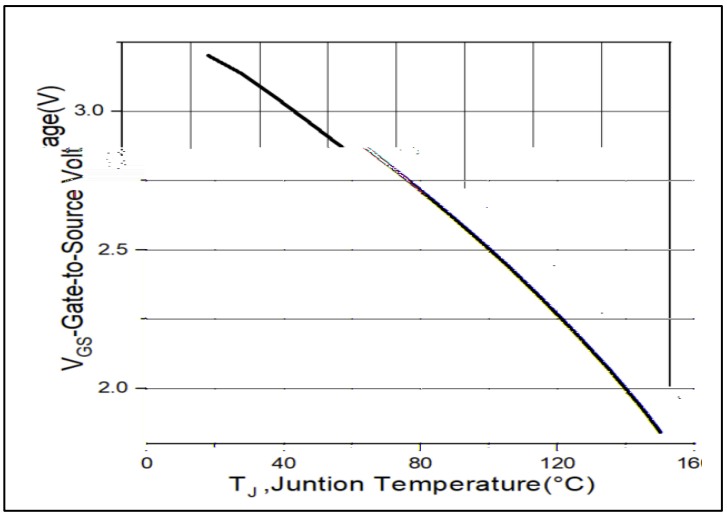
C 2 2



2 - - 2 2 2 2 2



2 : 2 2 2



2 2 2 2

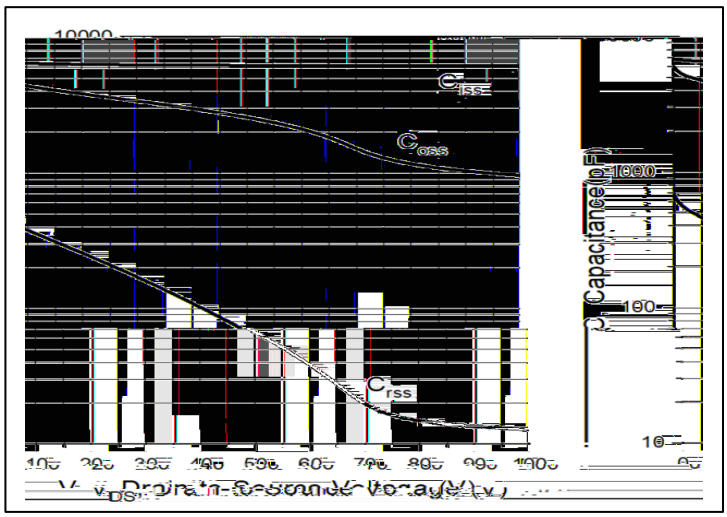


Figure5. Capacitance

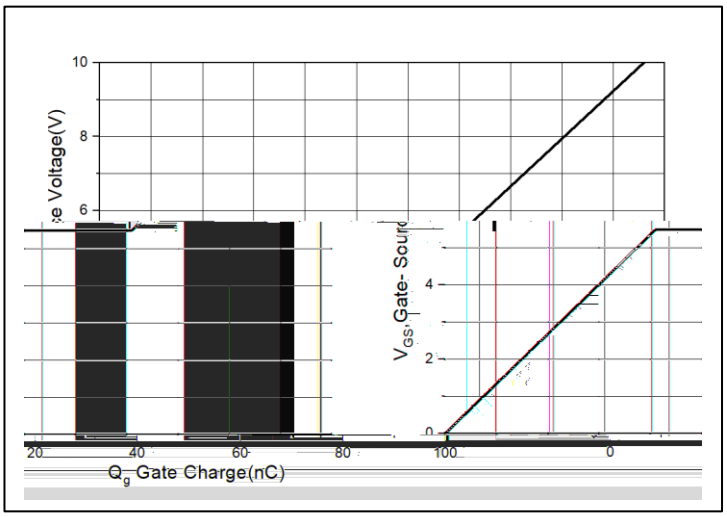
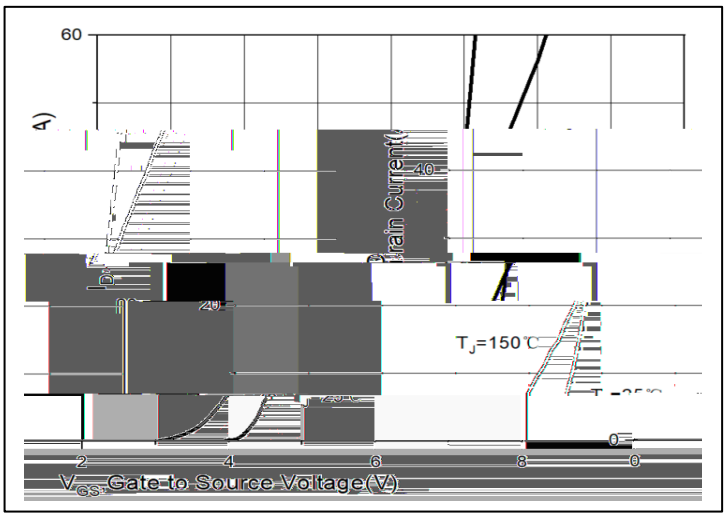
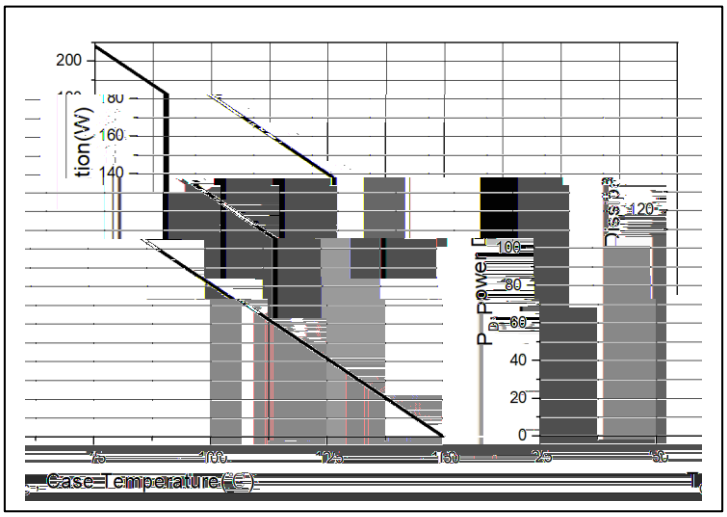


Figure6. Gate Charge

Typical Electrical and Thermal Characteristics

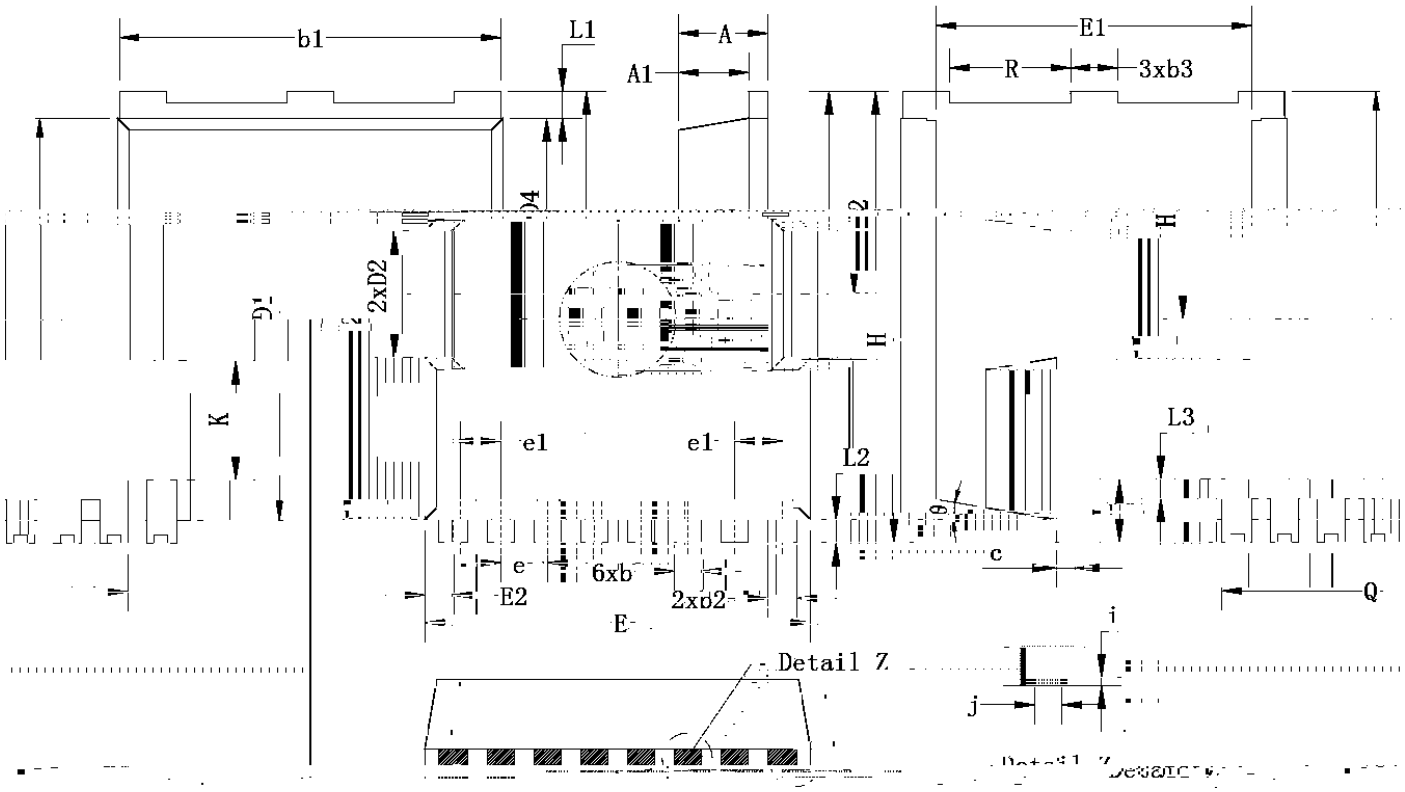


2 2



2 2

2



Symbol	Min	Typ	Max	Symbol	Min	Typ	Max
A	2.25	2.30	2.35	E2	0.65	0.70	0.75
11.80	A1	.75	.80	.85	H	11.60	11.70
C	b	0.65	0.70	0.75	H1		6.95 BS
C	b1	9.75	9.80	9.85	H2		5.90 BS
F	b2	0.70	0.75	0.80	i		0.10 RE
F	b3	1.15	1.20	1.25	j		0.35 RE
3.10 REF				e	0.45	0.50	0.55	K			
1.65	1.70	1.75	D	10.35	10.40	10.45	L			
0.70	0.75	D1	11.00	11.10	11.20	L1	0.65				
		e	1.20 BSC			Q		7.00 R			
			R.05	R.10	R.20						

ATTENTION:

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

equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer

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.

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.