The GreenMOS® high voltage MOSFET utilizes charge balance technology to achieve outstanding low on-resistance and lower gate charge. It is engineered to minimize conduction loss, provide superior switching performance and robust avalanche capability.

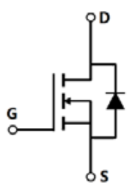
The GreenMOS® Generic series is optimized for extreme switching performance to minimize switching loss. It is tailored for high power density applications to meet the highest efficiency standards.

- Low $R_{DS(ON)}$ & FOM
- Extremely low switching loss
- Excellent stability and uniformity
- EMI and performance balanced

- LED lighting
- Charger
- Adapter
- TV power
- Telecom power
- Server power
- Solar/UPS

$V_{DS,\ min}$ @ $T_{j(max)}$	700	V
$I_{D,\ pulse}$	13.5	A
$R_{DS(ON),\ max}$ @ V_{GS}=10V	1.2	mΩ
Q_g	7	nC

OSG07N65PF	TO220	OSG07N65P



at T_j=25°C unless otherwise noted

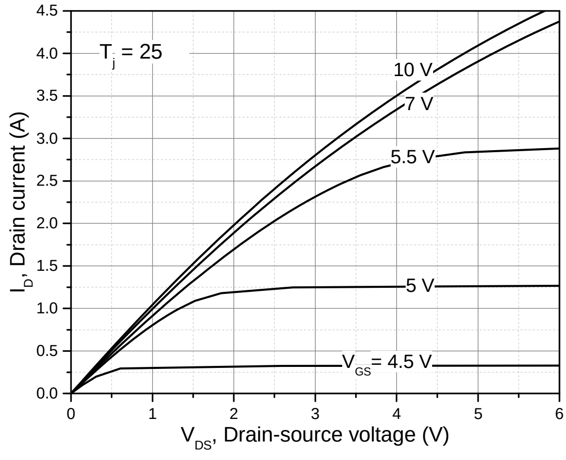
Drain-source voltage	V_{DS}	650	V
Gate-source voltage	V_{GS}	±30	V
Continuous drain current[1], T_C=25 °C	I_D		

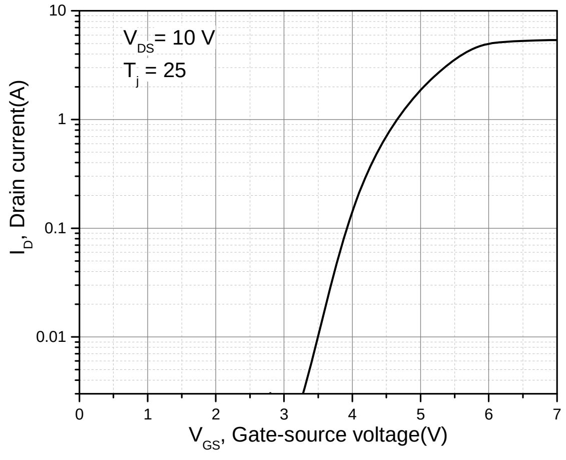
Input capacitance	C_{iss}		260.7		pF	V_{GS}=0 V, V_{DS}=50 V, f=100 KHz
Output capacitance	C_{oss}		24.1		pF	
Reverse transfer capacitance	C_{rss}		1.2		pF	
Turn-on delay time	$t_{d(on)}$		29.8		ns	V_{GS}=10 V, V_{DS}=400 V, R_G=2 Ω, I_D=2 A
Rise time	t_r		17.8		ns	
Turn-off delay time	$t_{d(off)}$		60.3		ns	
Fall time	t_f		14.9		ns	

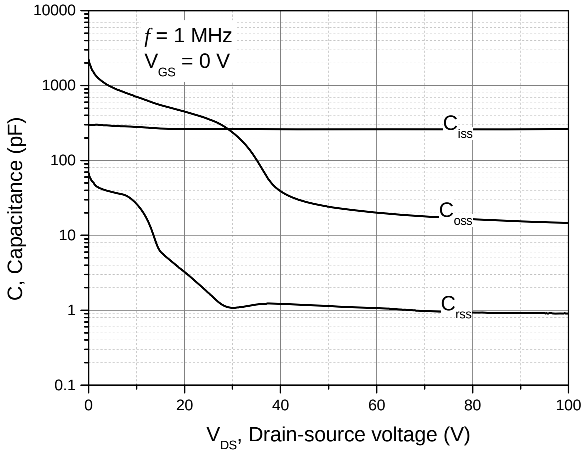
Total gate charge	Q_g		6.7		nC	V_{GS}=10 V, V_{DS}=400 V, I_D=2 A
Gate-source charge	Q_{gs}		1.5		nC	
Gate-drain charge	Q_{gd}		3.2		nC	
Gate plateau voltage	$V_{plateau}$		5.8		V	

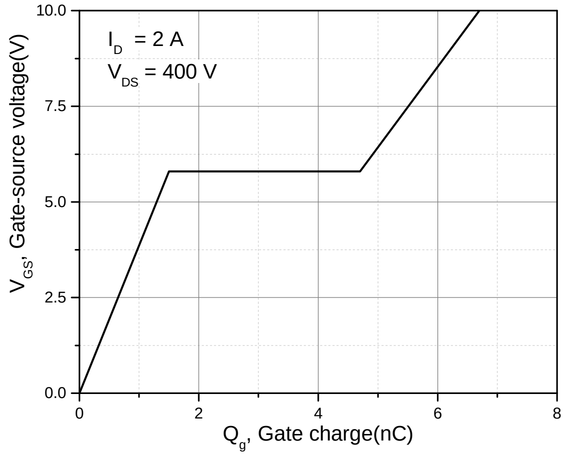
Diode forward voltage	V_{SD}			1.3	V	I_S=4.5 A, V_{GS}=0 V
Reverse recovery time	t_{rr}		130		ns	V_R=400 V, I_S=2 A, di/dt=100 A/μs
Reverse recovery charge	Q_{rr}		0.92		μC	
Peak reverse recovery current	I_{rrm}		14.7		A	

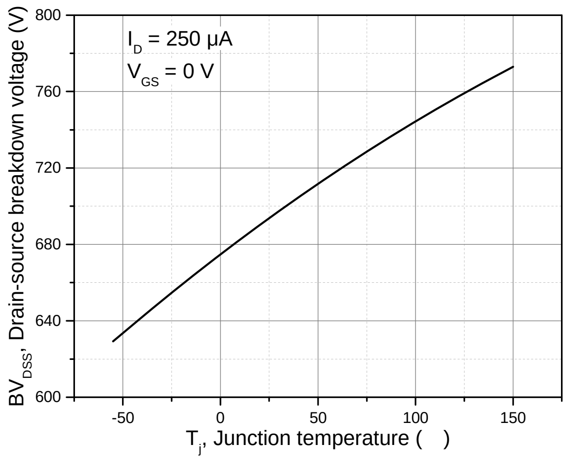
1) Calculated continuous current based on maximum allowable junction temperature.
2) Repetitive rating; pulse width limited by max. junction temperature.
3) Pd is based on max. junction temperature, using junction-case thermal resistance.
4) The value of $R_{θJA}$ is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_a=25 °C.
5) V_{DD}=100 V, V_{GS}=10 V, L=60 mH, starting T_j=25 °C.

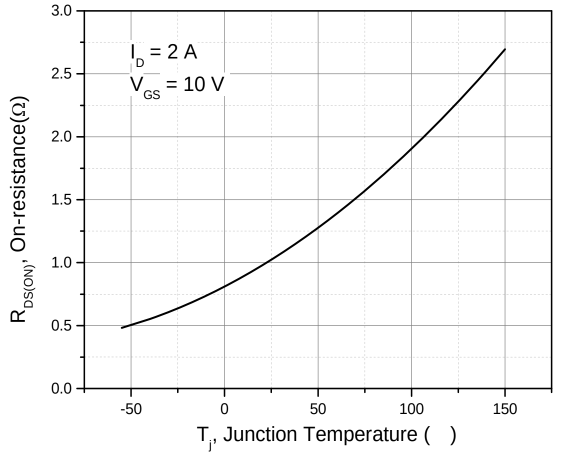

T_j = 25
10 V
7 V
5.5 V
5 V
V_{GS} = 4.5 V
I_D, Drain current (A)
V_{DS}, Drain-source voltage (V)

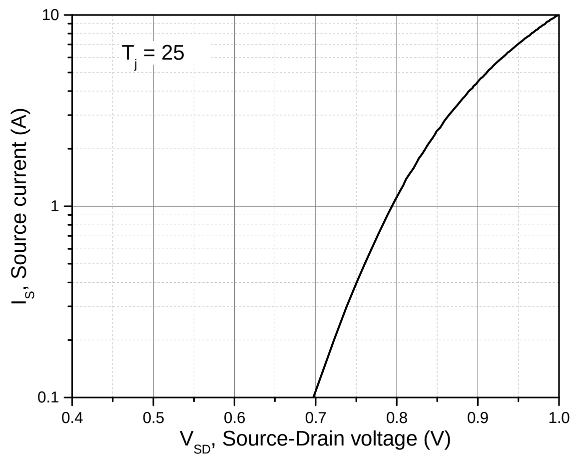

V_{DS} = 10 V
T_j = 25
I_D, Drain current(A)
V_{GS}, Gate-source voltage(V)

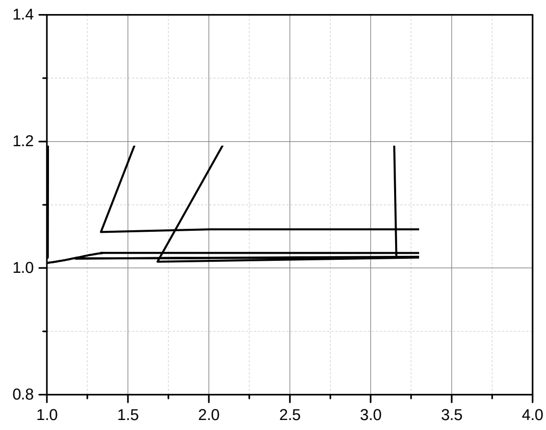

f = 1 MHz
V_{GS} = 0 V
C_{iss}
C_{oss}
C_{rss}
C, Capacitance (pF)
V_{DS}, Drain-source voltage (V)

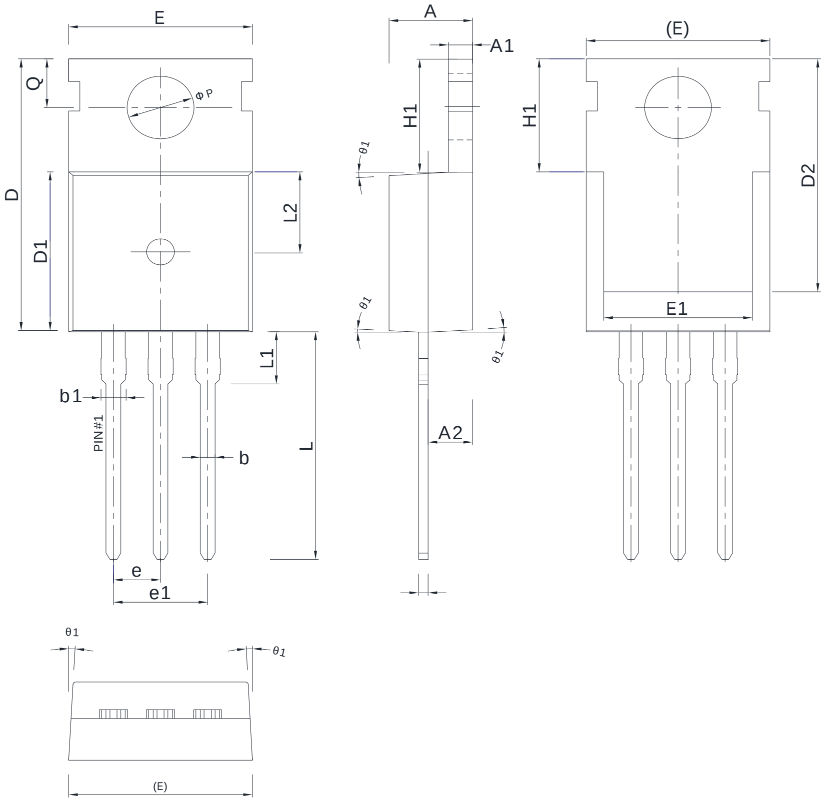

I_D = 2 A
V_{DS} = 400 V
V_{GS}, Gate-source voltage(V)
Q_g, Gate charge(nC)


I_D = 250 μA
V_{GS} = 0 V
BV_{DSS}, Drain-source breakdown voltage (V)
T_j, Junction temperature ( )


I_D = 2 A
V_{GS} = 10 V
$R_{DS(ON)}$, On-resistance(Ω)
T_j, Junction Temperature ( )


10
1
0.1
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Tj = 25
IS, Source current (A)
VSD, Source-Drain voltage (V)


1.4
1.2
1.0
0.8
1.0
1.5
2.0
2.5
3.0
3.5
4.0



Symbol	mm		
	Min	Nom	Max
A	4.40	4.50	4.60
A1	1.27	1.30	1.33
A2	2.30	2.40	2.50
b	0.70	-	0.90
b1	1.27	-	1.40
c	0.45	0.50	0.60
D	15.30	15.70	16.10
D1	9.10	9.20	9.30
D2	13.10	-	13.70
E	9.70	9.90	10.20
E1	7.80	8.00	8.20
e	2.54 BSC		
e1	5.08 BSC		
H1	6.30	6.50	6.70
L	12.78	13.08	13.38
L1	-	-	3.50
L2	4.60 REF		
ΦP	3.55	3.60	3.65
Q	2.73	-	2.87
θ1	1°	3°	5°

Version 1: TO220-J outline dimension

TO220-J	50	20	1000	5	5000

OSG07N65PF	TO220	yes	yes	yes

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