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.

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Parameter	Value	Unit
$V_{DS,\ min}$ @ $T_{j(max)}$	650	V
$I_{D,\ pulse}$	45	A

Absolute Maximum Ratings at T_j=25 unless otherwise noted

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	600	V
Gate-source voltage	V_{GS}	±30	V
Continuous drain current[1], T_C=25 °C	I_D	15	A
Continuous drain current[1], T_C=100 °C		9.3	
Pulsed drain current[2], T_C=25 °C	$I_{D, pulse}$	45	A
Continuous diode forward current[1], T_C=25 °C	I_S	15	A
Diode pulsed current[2], T_C=25 °C	$I_{S, pulse}$	45	A
Power dissipation[3], T_C=25 °C	P_D	104	W

Dynamic Characteristics

Parameter	Symbol	Min.	Typ.	[redacted]	Unit	Test condition
Input capacitance	C_{iss}		1016		pF	V_{GS}=0 V, V_{DS}=50 V, Hz
Output capacitance	C_{oss}		76.4		pF	
Reverse transfer capacitance	C_{rss}		3.36		pF	
Turn-on delay time	$t_{d(on)}$		31.3		ns	V_{GS}=10 V, V_{DS}=480 V, R_G=25 I_D=15 A
Rise time	t_r		40.8		ns	
Turn-off delay time	$t_{d(off)}$		43.7		ns	
Fall time	t_f		47.3		ns	

Gate Charge Characteristics

Parameter	Symbol	Min.	Typ.	[redacted]	Unit	Test condition
Total gate charge	[redacted]		[redacted]		nC	
Gate-source charge	Q_{gs}		5.1		nC	V_{GS}=10 V, V_{DS}=480 V, I_D=15 A

5.1 C

Electrical Characteristics Diagrams

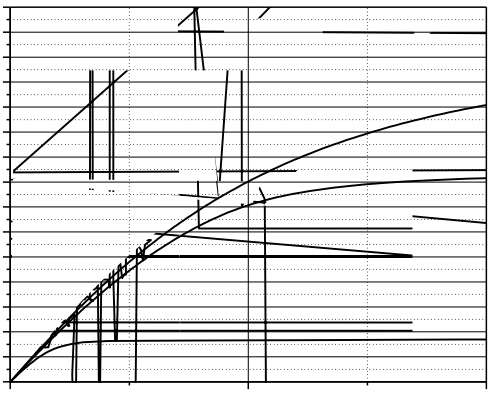


Figure 1. Typ. output characteristics

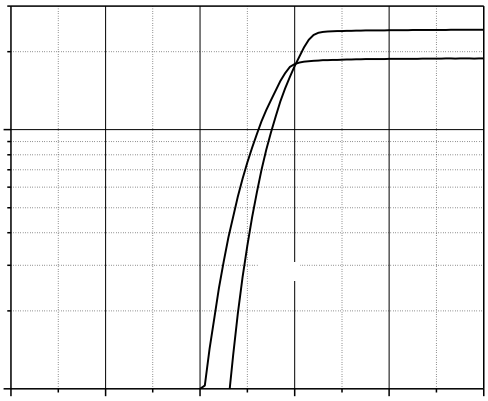


Figure 2. Typ. transfer characteristics

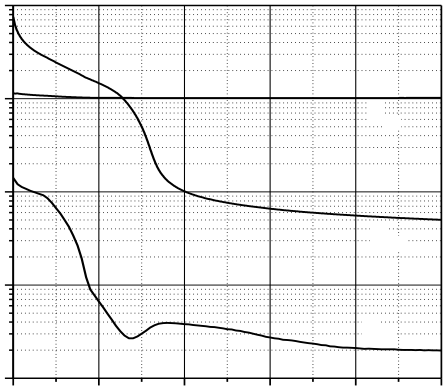


Figure 3. Typ. capacitances

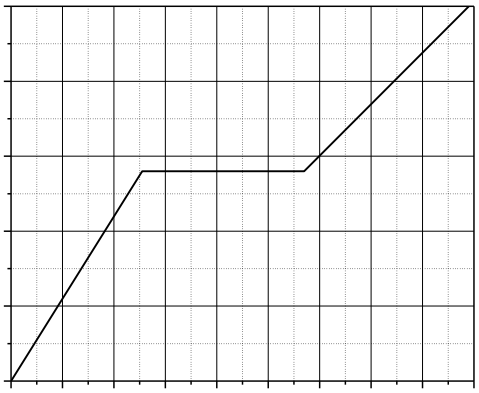


Figure 4. Typ. gate charge

Figure 5. Drain-source breakdown voltage

Figure 6. Drain-source on-state resistance

Test circuits and waveforms

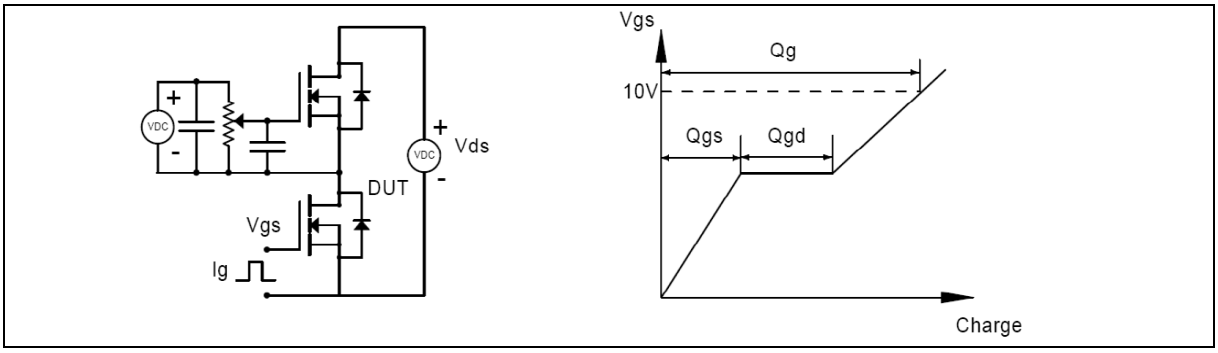


Figure 1. Gate charge test circuit & waveform

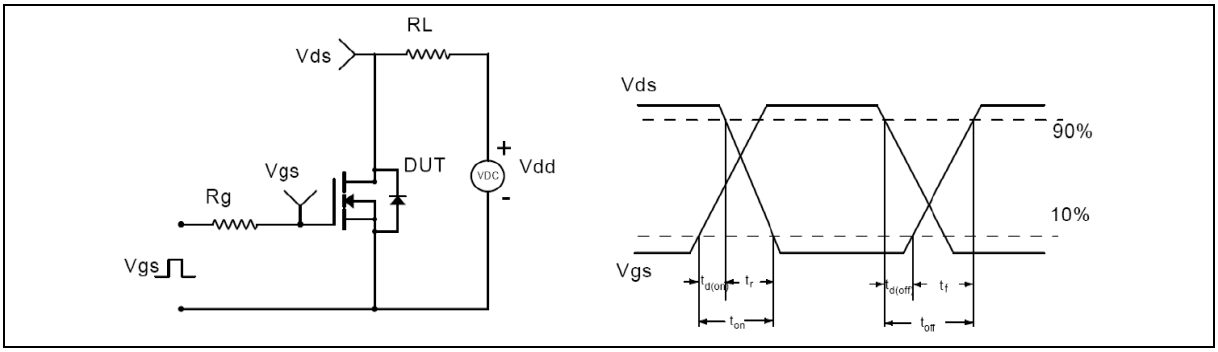


Figure 2. Switching time test circuit & waveforms

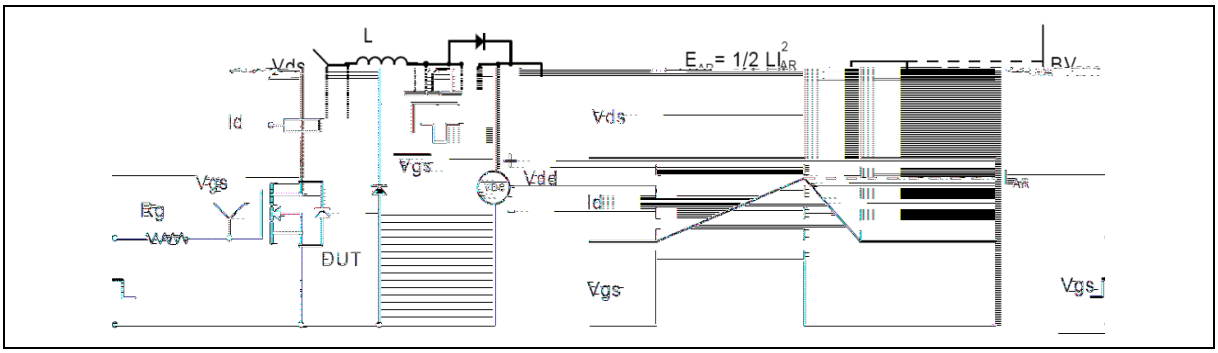


Figure 3. Unclamped inductive switching (UIS) test circuit & waveforms

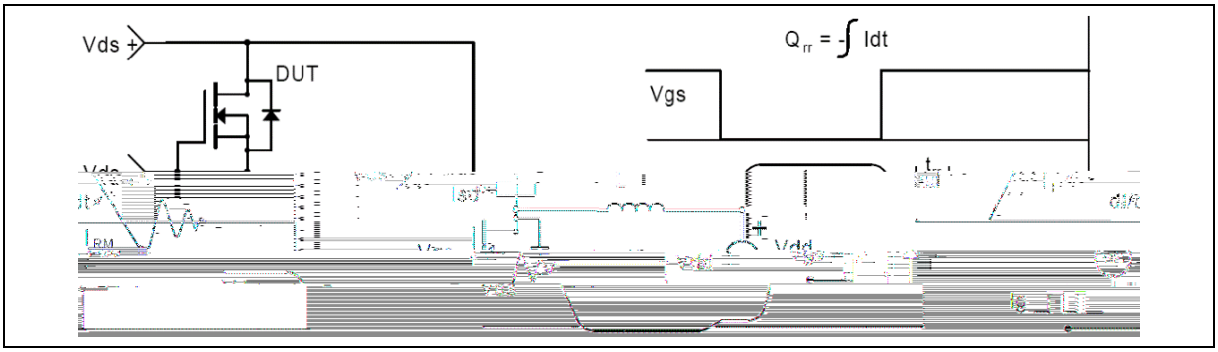
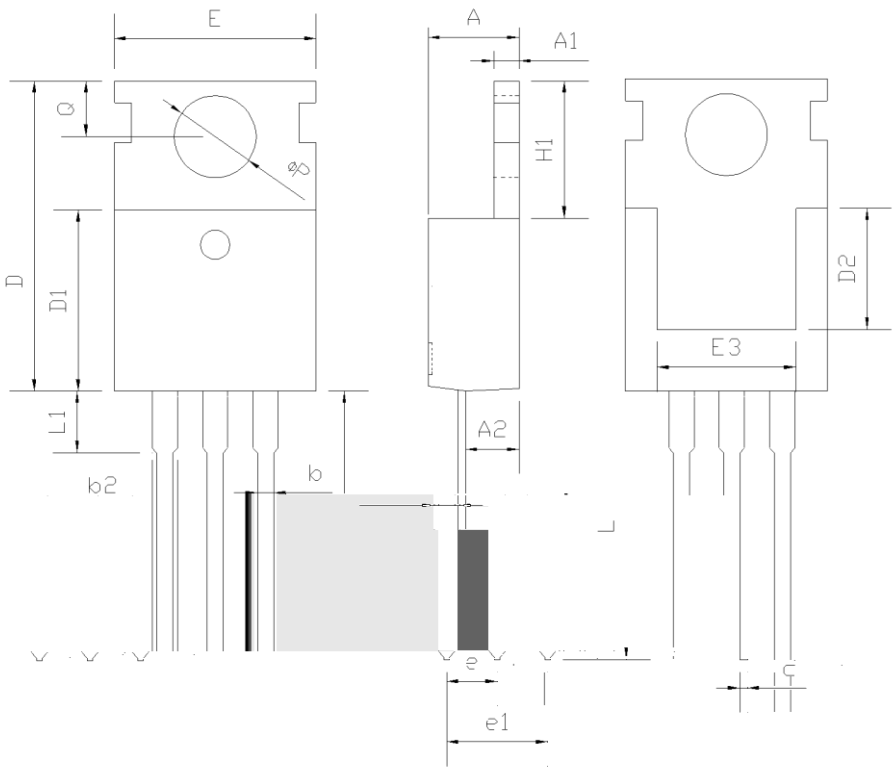


Figure 4. Diode reverse recovery test circuit & waveforms

Package Information



Symbol	mm		
	Min	Nom	Max
A	4.37	4.57	4.77
A1	1.25	1.30	1.45
A2	2.20	2.40	2.60
b	0.70	0.80	0.95
b2	1.17	1.27	1.47
c	0.40	0.50	0.65
D	15.10	15.60	16.10
D1	8.80	9.10	9.40
D2	5.50	-	-
E	9.70	10.00	10.30
E3	7.00	-	-
e	2.54 BSC		
e1	5.08 BSC		
H1	6.25	6.50	6.85
L	12.75	13.50	13.80
L1	-	3.10	3.40
	3.40	3.60	3.80
Q	2.60	2.80	3.00

Version 1: TO220-P outline dimension

Ordering Information

Package Type	Units/ Tube	Tubes/ Inner Box	Units/ Inner Box	Inner Boxes/ Carton Box	Units/ Carton Box
TO220-P	50	20	1000	6	6000

Product Information

Product	Package	Pb Free	RoHS	Halogen Free
OSG60R260PF	TO220	yes	yes	yes

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