

The GreenMOS<sup>®</sup> 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<sup>®</sup> 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.

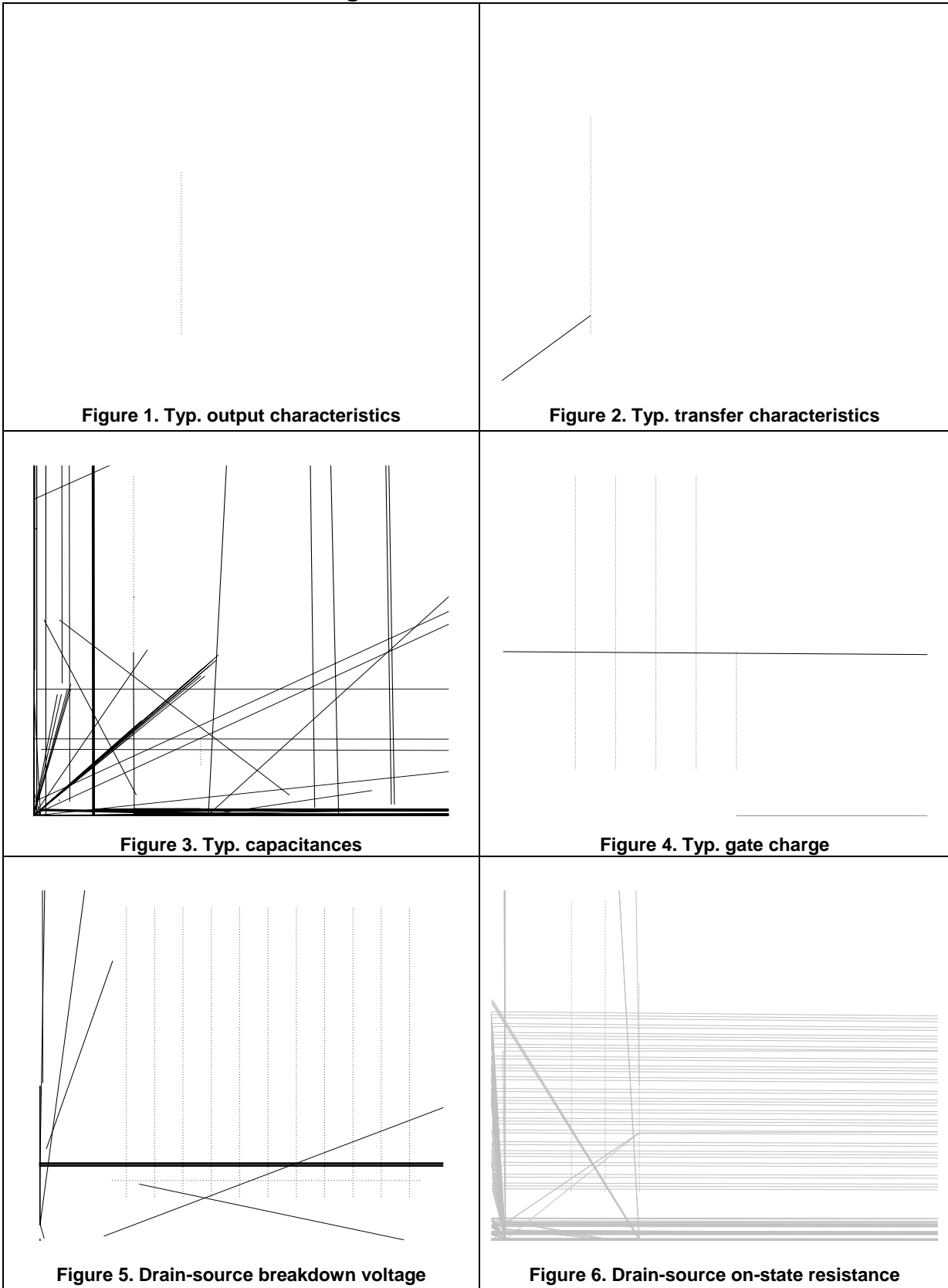
- /RZ 15 RQ )20
- ([WUHPHO\ ORZ VZLWFKLQJ ORVV
- ([FHOQVWOLW\ DQG XQLIRUPLW\
  
- 3& SRZHU y

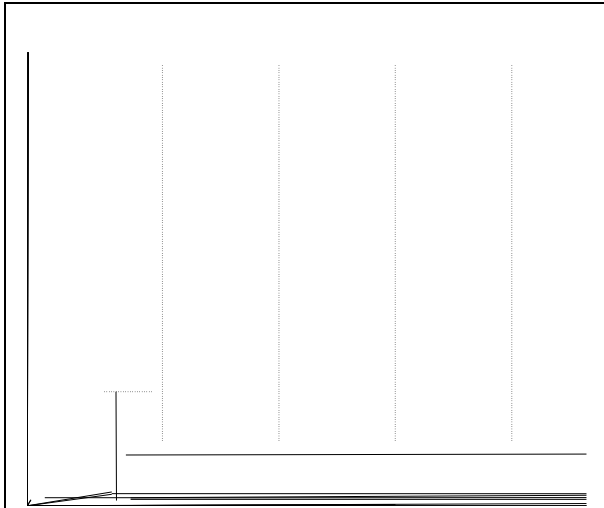


**Dynamic Characteristics**

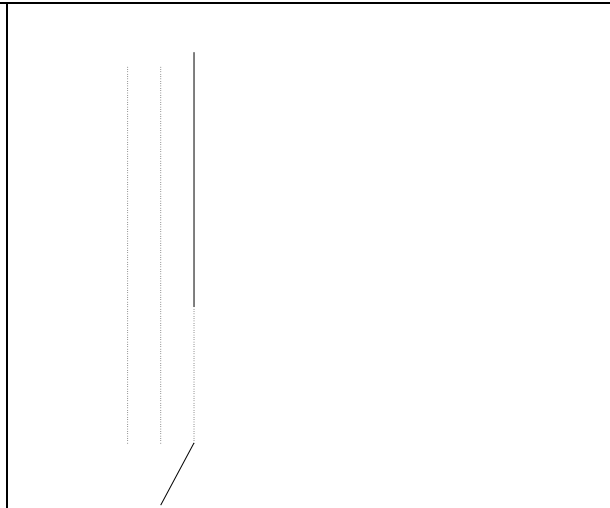
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Input capacitance	$C_{iss}$		986		pF	$V_{GS}=0\text{ V}$ , $V_{DS}=50\text{ V}$ , 1 MHz
Output capacitance	$C_{oss}$		67.7		pF	
Reverse transfer capacitance	$C_{rss}$		3.36		pF	
Turn-on delay time	$t_{d(on)}$		30.9		ns	$V_{GS}=10\text{ V}$ , $V_{DS}=520\text{ V}$ , $R_G=25$

**Electrical Characteristics Diagrams**

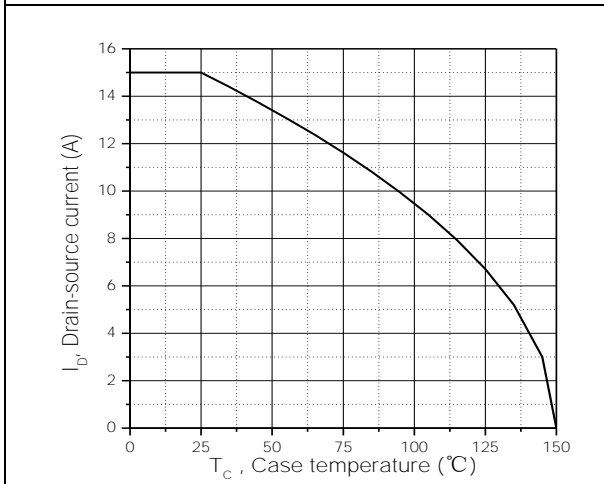




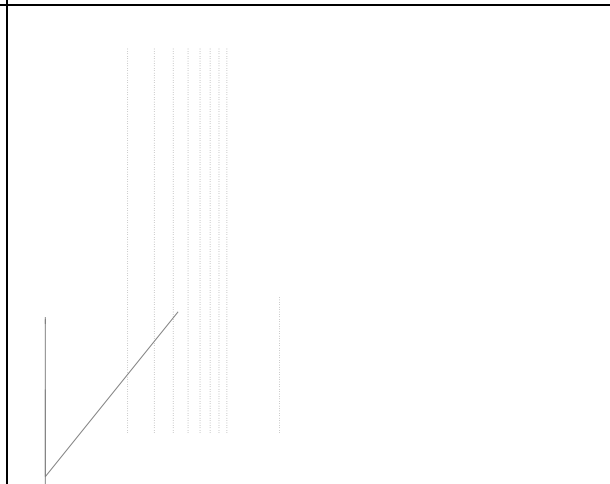
**Figure 7. Forward characteristic of body diode**



**Figure 8. Drain-source on-state resistance**

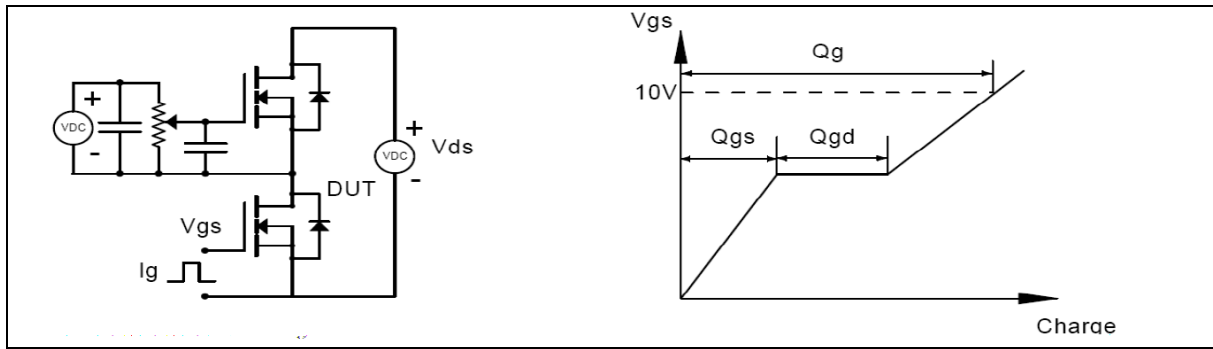


**Figure 9. Drain current**

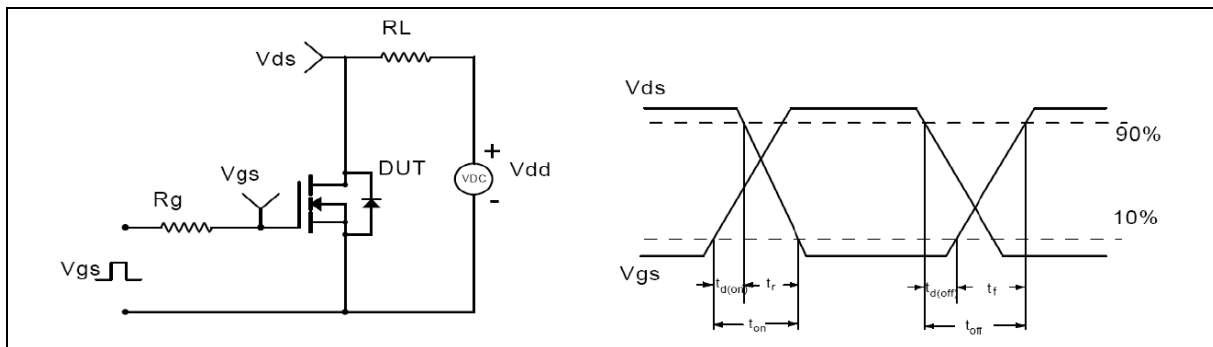


**Figure 10. Safe operation area T<sub>c</sub>=25**

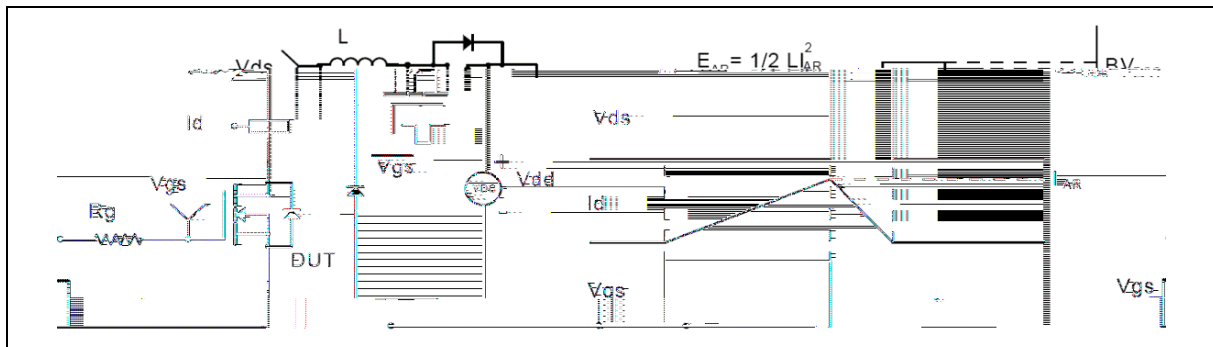
**Test circuits and waveforms**



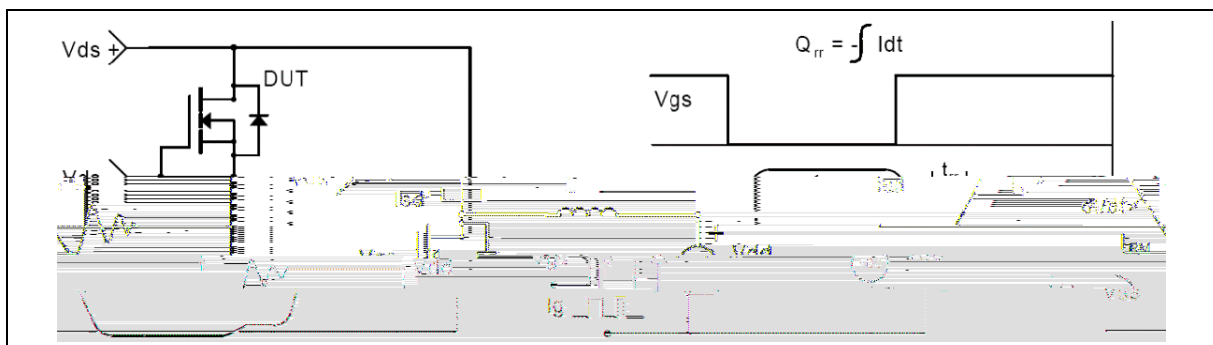
**Figure 1. Gate charge test circuit & waveform**



**Figure 2. Switching time test circuit & waveforms**

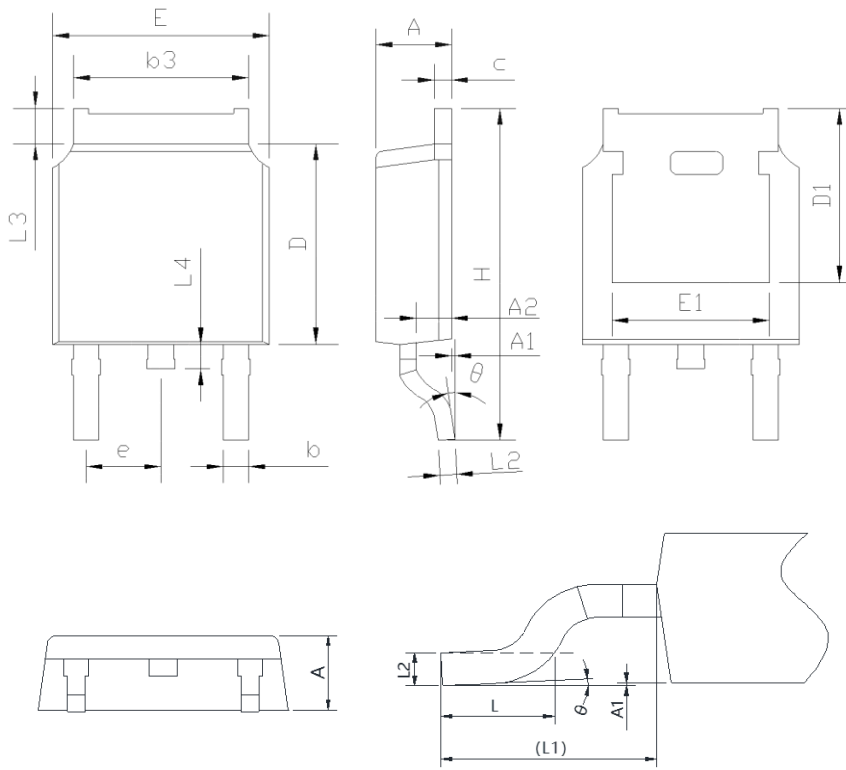


**Figure 3. Unclamped inductive switching (UIS) test circuit & waveforms**



**Figure 4. Diode reverse recovery test circuit & waveforms**

**Package Information**



Symbol	mm		
	Min	Nom	Max
A	2.20	2.30	2.38
A1	0.00	-	0.20
A2	0.97	1.07	1.17
b	0.68	0.78	0.90
b3	5.20	5.33	5.46
c	0.43	0.53	0.61
D	5.98	6.10	6.22
D1	5.30 REF		
E	6.40	6.60	6.73
E1	4.63	-	-
e	2.286 BSC		
H	9.40	10.10	10.50
L	1.38	1.50	1.75
L1	2.90 REF		
L2	0.51 BSC		
L3	0.88	-	1.28
L4	0.50	-	1.00
	0 °	-	°

Version1: TO252-C package outline dimension

**Ordering Information**

Package Type	Units/ Reel	Reels/ Inner Box	Units/ Inner Box	Inner Boxes/ Carton Box	Units/ Carton Box
TO252-C	2500	2	5000	5	25000

**Product Information**

Product	Package	Pb Free	RoHS	Halogen Free
OSG65R290DF	TO252	yes	yes	yes

7KH LQIRUPDWLRQ JLYHQ LQ WKLV GRFXPHQW VKDOO LQ QR H  
 FRQGLWLRQV DUDFWHULVWLFV :LWK UHVSDFW WR DQ\ H[DPSOHV  
 YDOXHV KHUHLERDQG RU DQ\ LQIRUPDWLRQ UHJDUGLQJ WKH DSS  
 6HPLFRQGXFWRU FODLPV DQ\ DQG DOO ZDUUDQWLHV DQG OLDE  
 ZLWKRXW OLPLWLRQV LQIUDUJHPCMHWR LQWHU LQWHUO HFOXXV DKS  
 SDUW\ )RU IXUWKHU LQIRUPDWLRQ RQ WHFKQRORJ\ GHOLYHU\ WHUP  
 FRQWDEWLWDO 6HPLFRQGXFWRU & RS\ULJI [EZHQWDLQWDOVHPLFRP](#)