

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.

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**Dynamic Characteristics**

Parameter	Min.	Typ.	Max.	Unit	Test condition
Input capacitance		1433		pF	V <sub>GS</sub> =0 V, V <sub>DS</sub> =50 V, 100 kHz
Output capacitance		92.5		pF	
Reverse transfer capacitance		3.9		pF	
Turn-on delay time		40.1		ns	V <sub>GS</sub> =10 V, V <sub>DS</sub> =520 V, R <sub>G</sub> =25 I <sub>D</sub> =20 A
Rise time		49.8		ns	
Turn-off delay time		57.3		ns	
Fall time		63.7		ns	

**Gate Charge Characteristic**

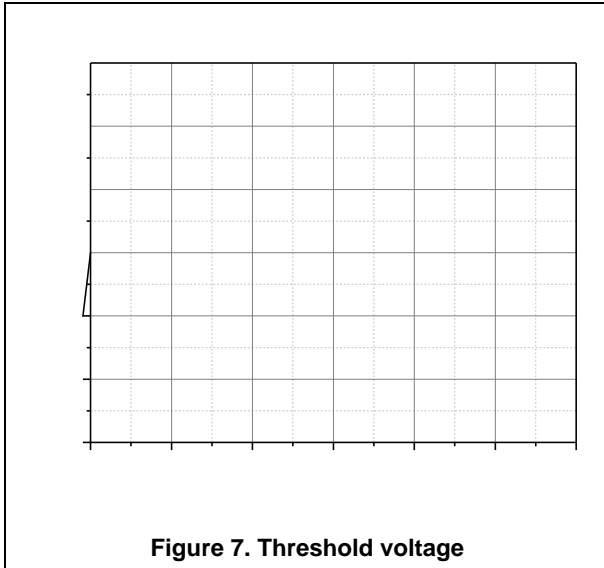
Parameter	Min.	Typ.	Max.	Unit	Test condition
Total gate charge		24.8		nC	V <sub>GS</sub> =10 V,
Gate-source charge		7.2		nC	
Gate-drain charge					

**Body Diode Characteristic**

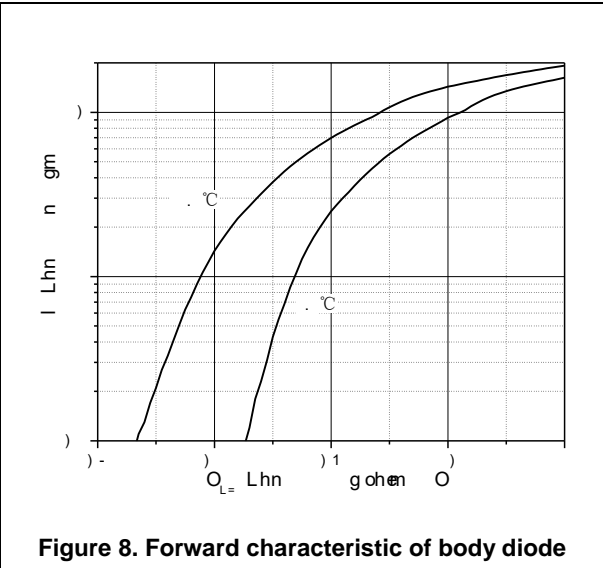
Parameter	Min.	Typ.	Max.	Unit	Test condition
Diode forward voltage					

### Electrical Characteristics Diagrams

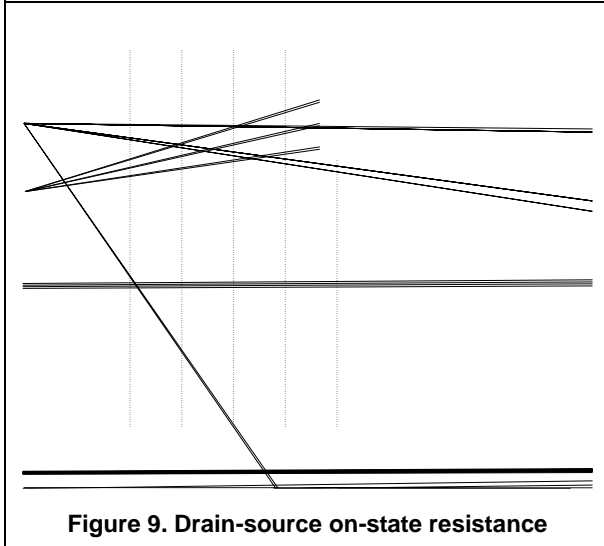
<p>Figure 1. Typ. output characteristics</p>	<p>Figure 2. Typ. transfer characteristics</p>
<p>Figure 3. Typ. capacitances</p>	<p>Figure 4. Typ. gate charge</p>
<p>Figure 5. Drain-source breakdown voltage</p>	<p>Figure 6. Drain-source on-state resistance</p>



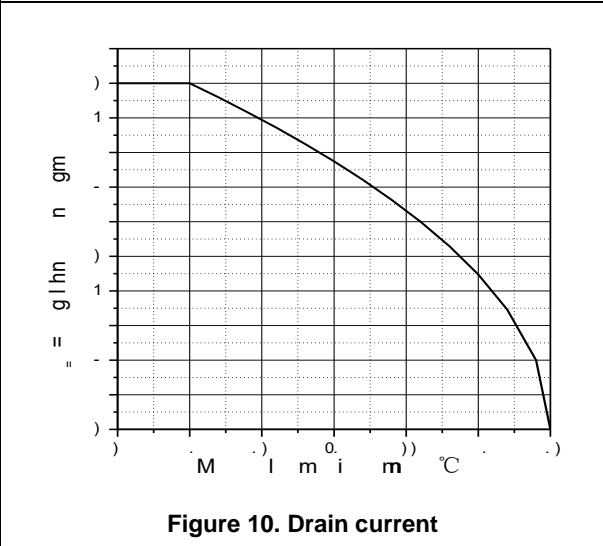
**Figure 7. Threshold voltage**



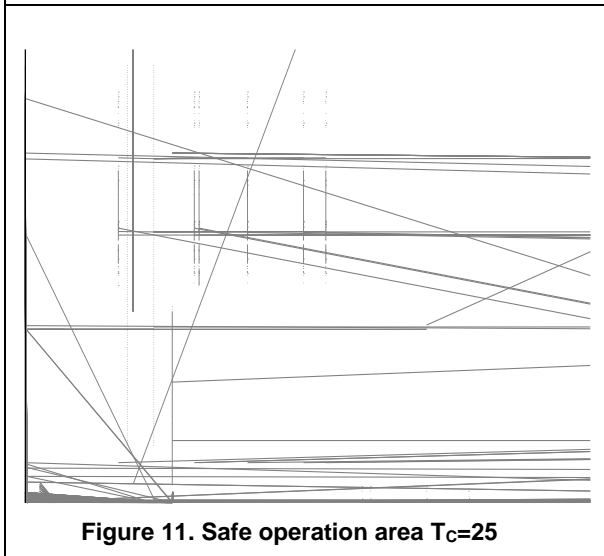
**Figure 8. Forward characteristic of body diode**



**Figure 9. Drain-source on-state resistance**



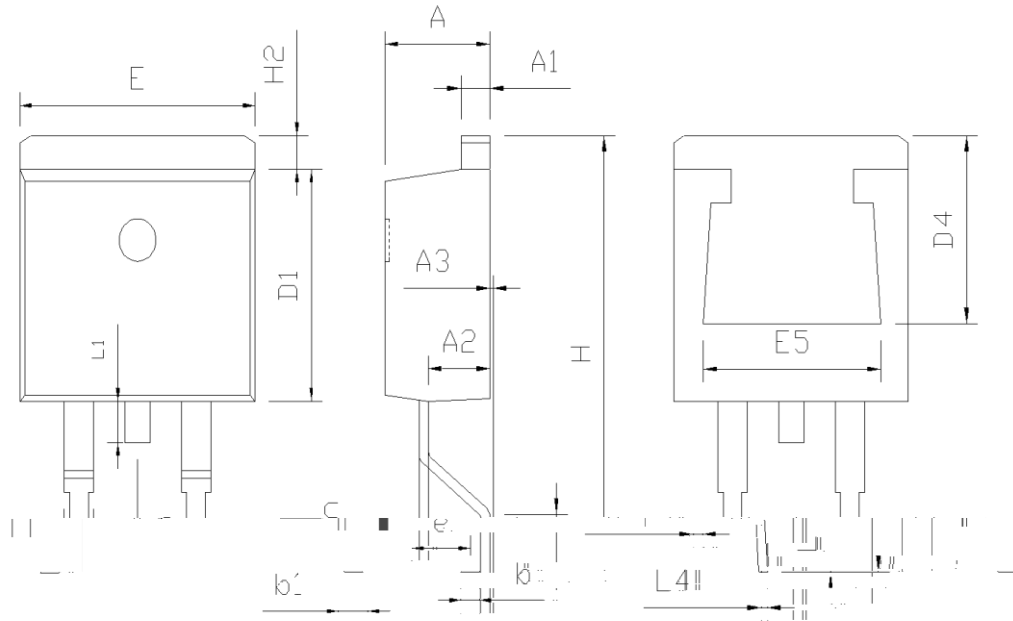
**Figure 10. Drain current**



**Figure 11. Safe operation area  $T_C=25$**



**Package Information**



Symbol	mm		
	Min	Nom	Max
A	4.37	4.57	4.77
A1	1.22	1.27	1.42
A2	2.49	2.69	2.89
A3	0.00	0.13	0.25
b	0.70	0.81	0.96
b1	1.17	1.27	1.47
c	0.30	0.38	0.53
D1	8.50	8.70	8.90
D4	6.60	-	-
E	9.86	10.16	10.36
E5	7.06	-	-
e	2.54 BSC		
H	14.70	15.10	15.50
H2	1.07	1.27	1.47
L	2.00	2.30	2.60
L1	1.40	1.55	1.70
L4	0.25 BSC		
	0°	5°	9°

Version1: TO263-C package outline dimension

**Ordering Information**

Package Type	Units/ Tube	Tubes/ Inner Box	Units/ Inner Box	Inner Boxes/ Carton Box	Units/ Carton Box
TO263-C	50	20	1000	6	6000

**Product Information**

Product	Package	Pb Free	RoHS	Halogen Free
OSG65R200KF	TO263	yes	yes	yes

