

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)}	700	V
I _{D, pulse}	12	A
I _{D, max} @ V _{GS} =10V	1.4	

Absolute Maximum Ratings at $T_j=25$ °C unless otherwise noted

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	650	V
Gate-source voltage	V_{GS}	± 30	V
Continuous drain current ¹⁾ , $T_C=25$ °C	I_D	4	A
Continuous drain current ¹⁾ , $T_C=100$ °C		2.5	
Pulsed drain current ²⁾ , $T_C=25$ °C	$I_{D, \text{pulse}}$	12	A
Continuous diode forward current ¹⁾ , $T_C=25$ °C	I_S	4	

OSG65R1K4FF

Electrical Characteristics Diagrams**Figure 1. Typ. output characteristics****Figure 2. Typ. transfer characteristics****Figure 3. Typ. capacitances****Figure 4. Typ. gate charge**

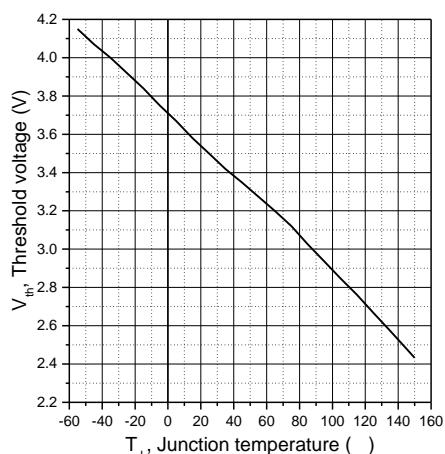


Figure 7. Threshold voltage

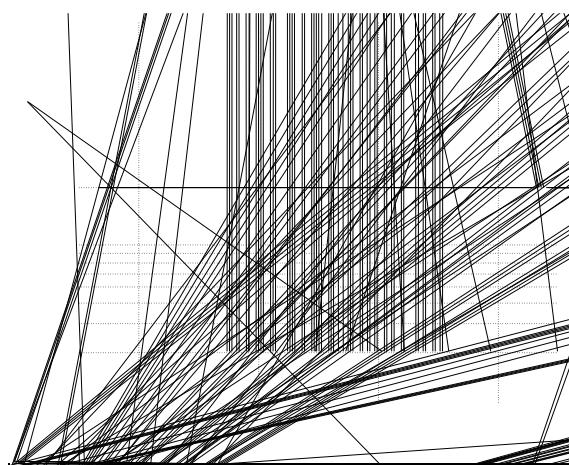


Figure 8. Forward characteristic of body diode

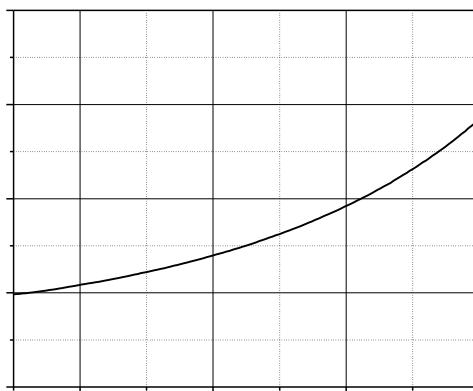


Figure 9. Drain-source on-state resistance

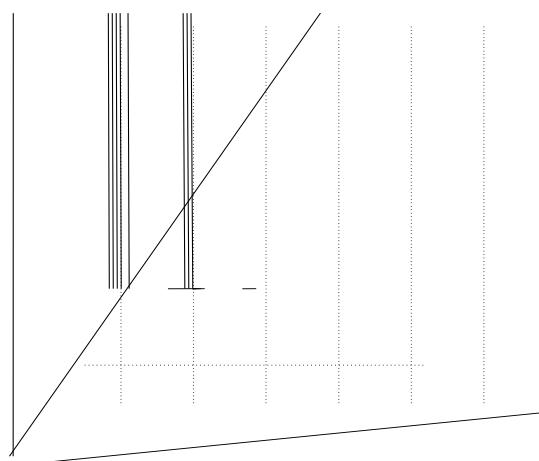


Figure 10. Drain current

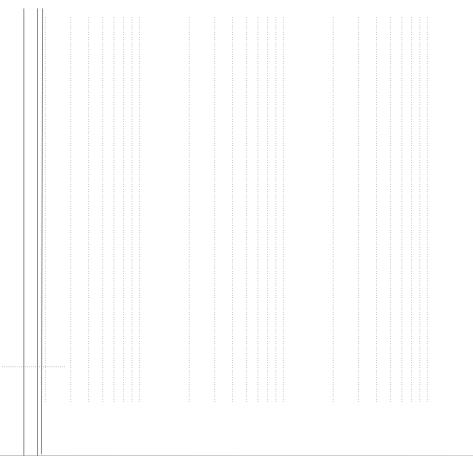
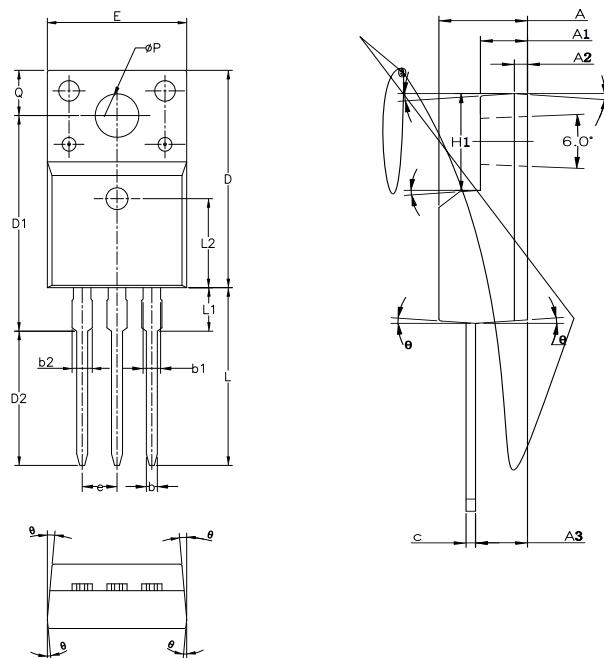


Figure 11. Safe operation area $T_c=25$ °C

Package Information



Symbol	mm		
	Min	Nom	Max
A	4.50	4.70	4.83
A1	2.34	2.54	2.74
A2	0.70 REF		
A3	2.56	2.76	2.93
b	0.70	-	0.90
b1	1.18	-	1.38
b2	-	-	1.47
c	0.45	0.50	0.60
D	15.67	15.87	16.07
D1	15.55	15.75	15.95
D2	9.60	9.80	10.00
E	9.96	10.16	10.36
e	2.54 BSC		
H1	6.48	6.68	6.88
L	12.68	12.98	13.28
L1	-	-	3.50
L2	6.50 REF		
	3.08	3.18	3.28
Q	3.20	-	3.40
	1°	3°	5°

Version1: TO220F-J package outline dimension

Ordering Information

Package Type	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Carton Box	Units/Carton Box
TO220F-J	50	20	1000	5	5000

Product Information

Product	Package	Pb Free	RoHS	Halogen Free
OSG65R1K4FF	TO220F	yes	yes	yes