

Absolute Maximum Ratings at $T_j=25$ 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	12	A
Continuous drain current ¹⁾ , $T_C=100$ °C		7.6	
Pulsed drain current ²⁾ , $T_C=25$ °C	$I_{D, pulse}$	36	A
Continuous diode forward current ¹⁾ , $T_C=25$ °C	I_S	12	A
Diode pulsed current ²⁾ , $T_C=25$ °C	$I_{S, pulse}$	36	A

Dynamic Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Input capacitance	C_{iss}		815.1		pF	$V_{GS}=0\text{ V}$, $V_{DS}=50\text{ V}$, 00 kHz
Output capacitance	C_{oss}		59.6		pF	
Reverse transfer capacitance	C_{rss}		2.9		pF	
Turn-on delay time	$t_{d(on)}$		30.8		ns	$V_{GS}=10\text{ V}$, $V_{DS}=400\text{ V}$, $R_G=2$ $I_D=6\text{ A}$
Rise time	t_r		18.6		ns	
Turn-off delay time	$t_{d(off)}$		71.1		ns	
Fall time	t_f		14.0		ns	

Gate Charge Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Total gate charge	Q_g		15.2		nC	$V_{GS}=10\text{ V}$, $V_{DS}=400\text{ V}$, $I_D=6\text{ A}$
Gate-source charge	Q_{gs}		3.3		nC	
Gate-drain charge	Q_{gd}		5.9		nC	
Gate plateau voltage	$V_{plateau}$		6.3		V	

Body Diode Characteristics

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

Electrical Characteristics Diagrams

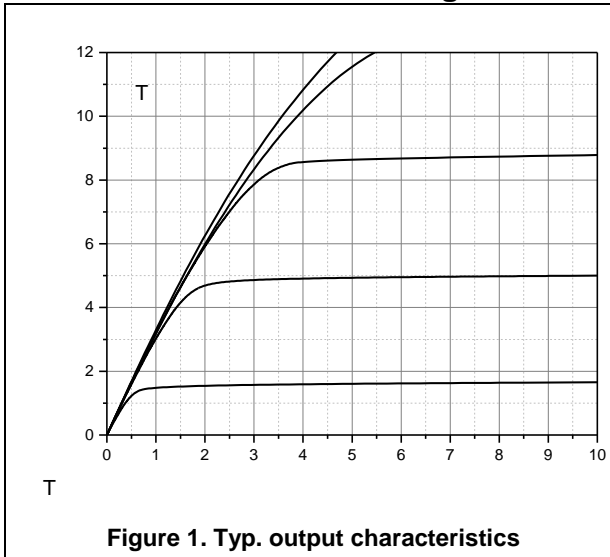


Figure 1. Typ. output characteristics

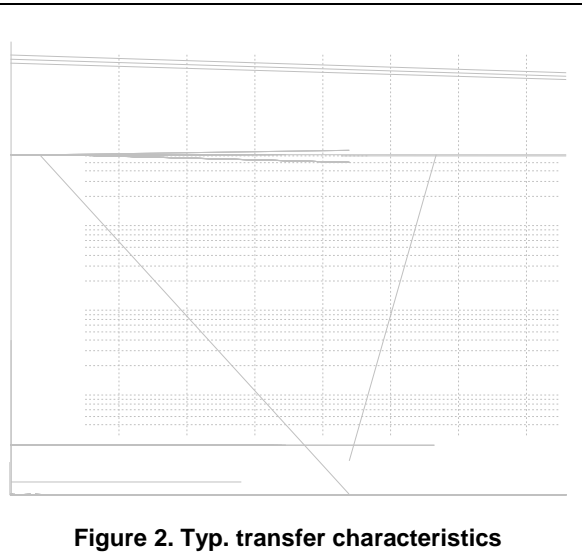


Figure 2. Typ. transfer characteristics

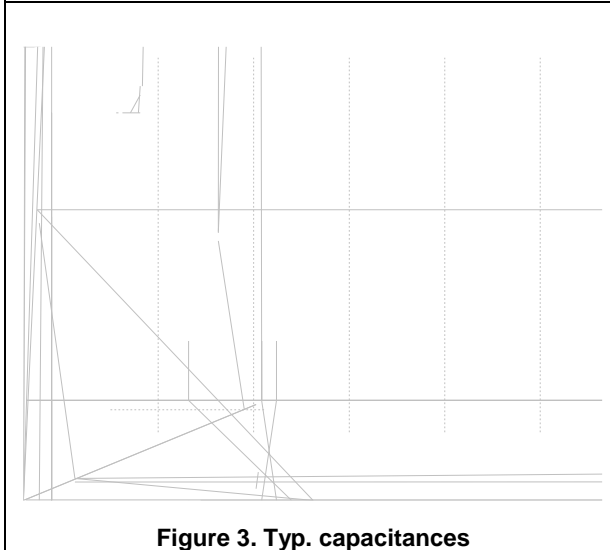


Figure 3. Typ. capacitances

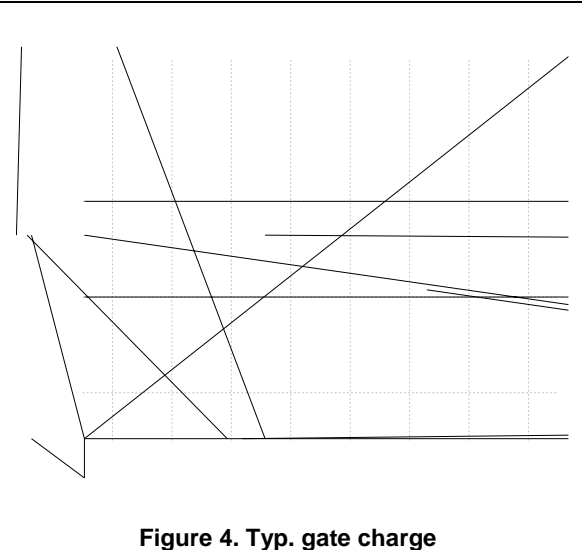


Figure 4. Typ. gate charge

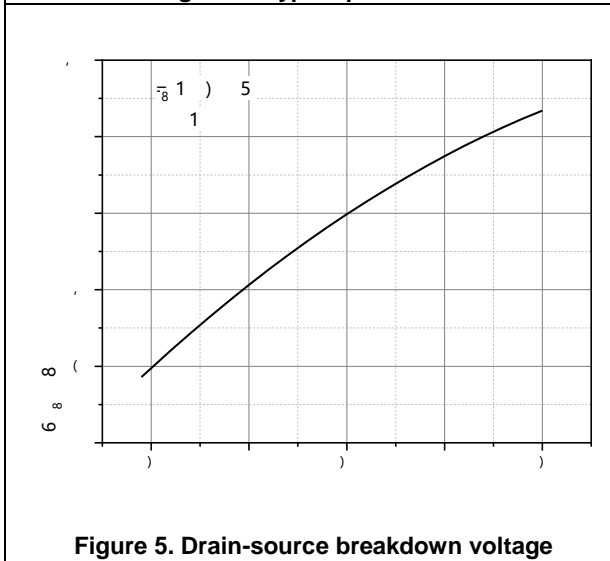


Figure 5. Drain-source breakdown voltage

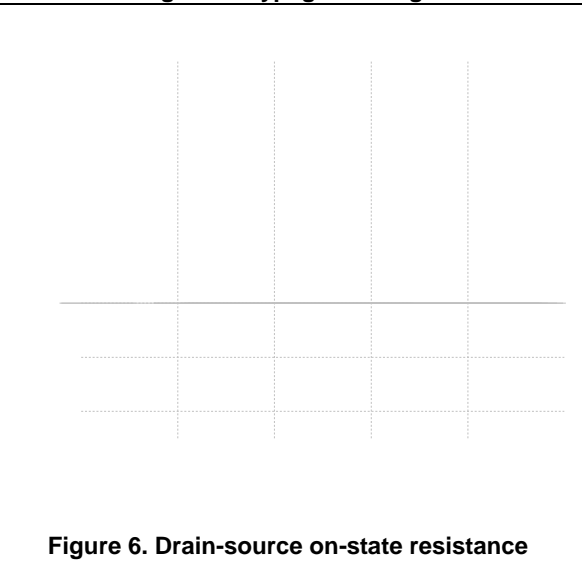


Figure 6. Drain-source on-state resistance

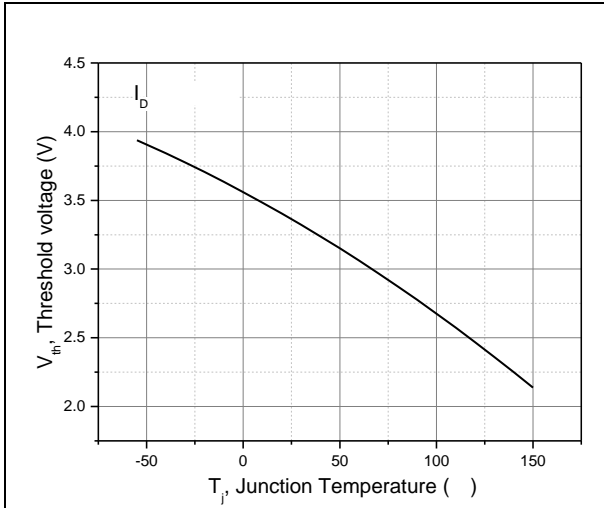


Figure 7. Threshold voltage

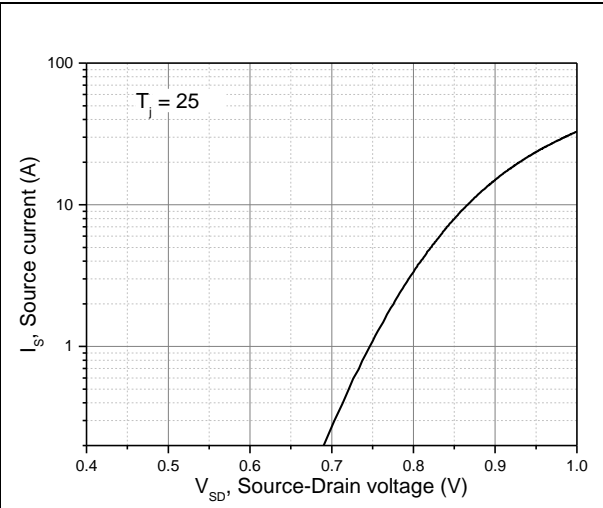


Figure 8. Forward characteristic of body diode

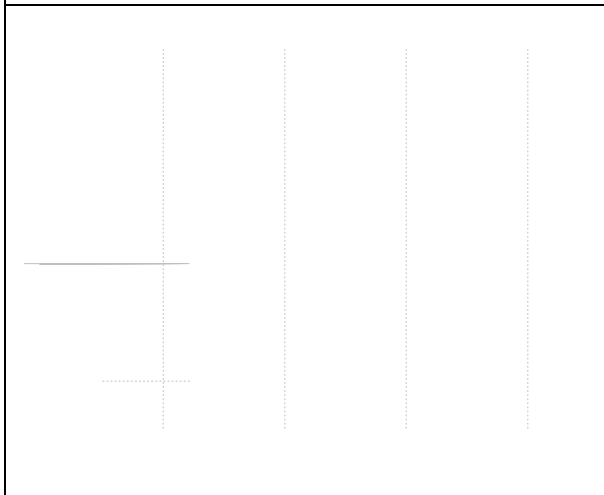


Figure 9. Drain-source on-state resistance

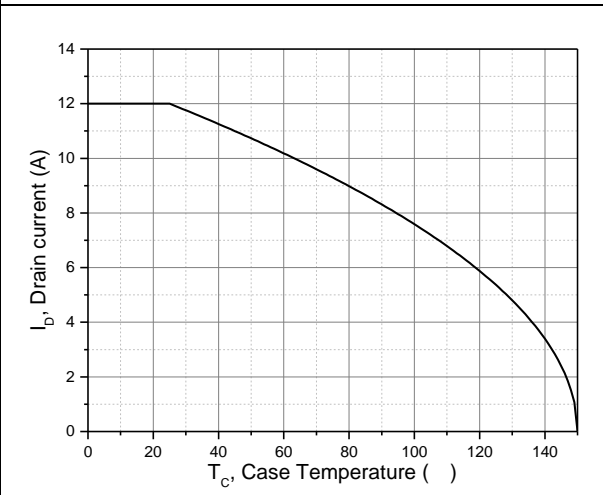


Figure 10. Drain current

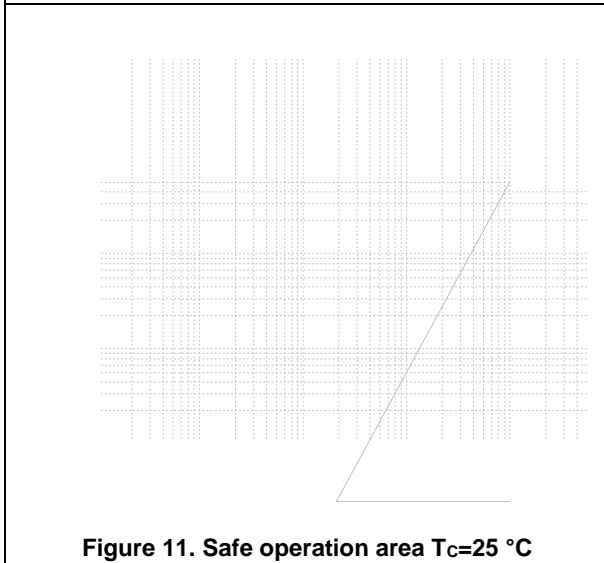



Figure 11. Safe operation area $T_c=25$ °C

OSG65R360JEF 
Enhancement Mode N-Channel Power MOSFET

Ordering Information

Package Type	Units/ Reel	Reels/ Inner Box	Units/ Inner Box	Inner Boxes/ Carton Box	Units/ Carton Box
PDFN8*8-L	2500	1	2500	10	25000

Product Information

Product	Package	Pb Free	RoHS	Halogen Free
OSG65R360JEF	PDFN8*8	yes	yes	yes

