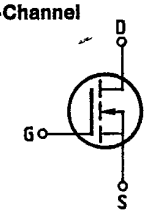
SIEMENS AKTIENGESELLSCHAF

Main ratings

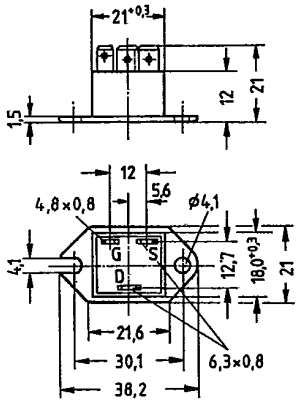
Drain-source voltage	V_{DS}	= 400 V
Continuous drain current	I_D	= 9,6 A
Drain-source on-resistance	$R_{DS(on)}$	= 0,4 Ω

N-Channel



Description SIPMOS, N-channel, enhancement mode
Case Plastic package TO 238 AA with insulated metal base plate in accordance with JEDEC, compatible with TO 3; AMP plug-in connections.
Approx. weight 21 g

Type	Ordering code
S BUZ 67	C67078-A1610-A2



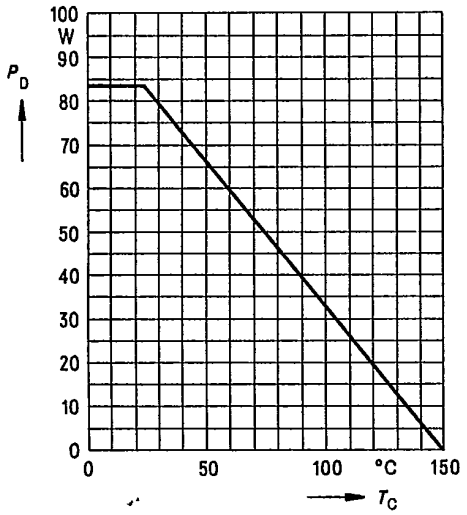
Dimensions in mm

Maximum ratings

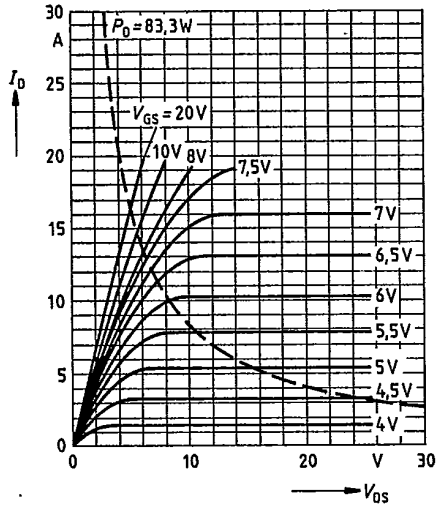
Description	Symbols	Ratings	Units	Conditions
Drain-source voltage	V_{DS}	400	V	
Drain-gate voltage	V_{DGR}	400	V	R_{GS} = 20 kΩ
Continuous drain current	I_D	9,6	A	T_C = 25 °C
Pulsed drain current	I_{Dpuls}	38	A	T_C = 25 °C
Gate-source voltage	V_{GS}	±20	V	
Max. power dissipation	P_D	83,3	W	T_C = 25 °C
Operating and storage temperature range	T_j T_{stg}	−40 ... +150	°C	
Isolation test voltage	V_{is}	3500	Vdc[1])	t = 1 min
DIN humidity category		F	–	DIN 40040
IEC climatic category		40/150/56		DIN IEC 68-1
Thermal resistance				
Chip – case	$R_{th\,JC}$	≤ 1,5	K/W	

[1]) Isolation test voltage between drain and base plate referred to standard climate 23/50 in accordance with DIN 50014.

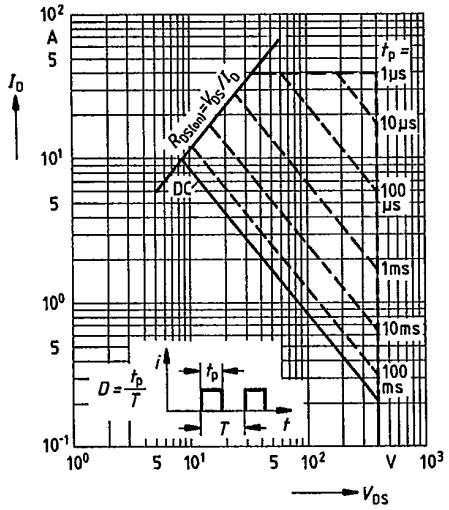
Power dissipation $P_D = f(T_C)$



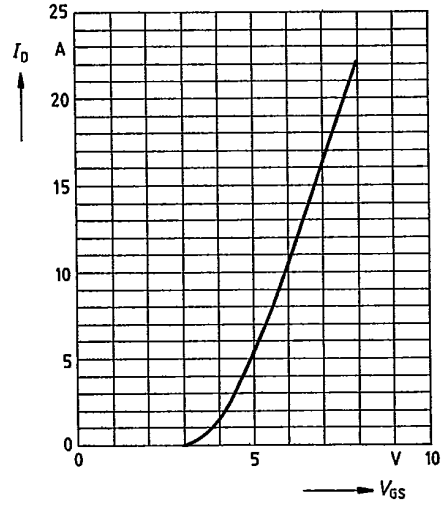
Typical output characteristics $I_D = f(V_{DS})$
parameter: 80 µs pulse test,
$T_j = 25°C$



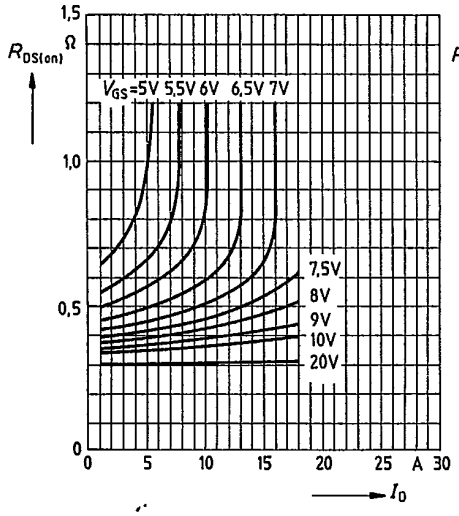
Safe operating area $I_D = f(V_{DS})$
parameter: $D = 0.01$, $T_C = 25°C$



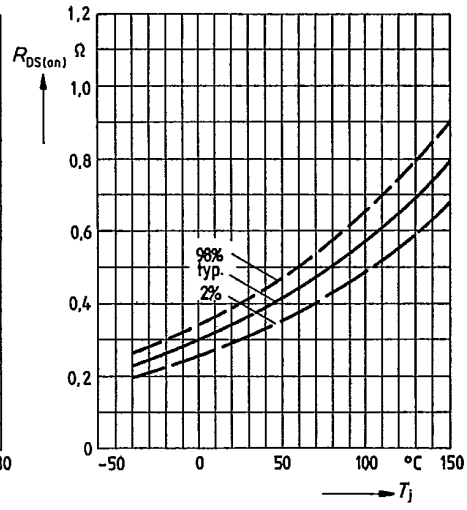
Typical transfer characteristic $I_D = f(V_{GS})$
parameter: 80 µs pulse test,
$V_{DS} = 25V$, $T_j = 25°C$



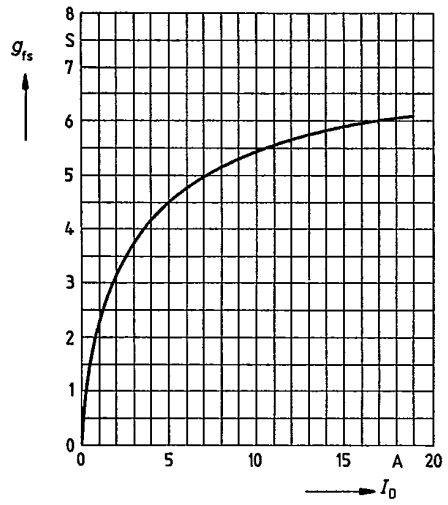
Typical drain-source on-state resistance
$R_{DS(on)} = f(I_D)$
parameter: V_{GS}; $T_j = 25\,°C$



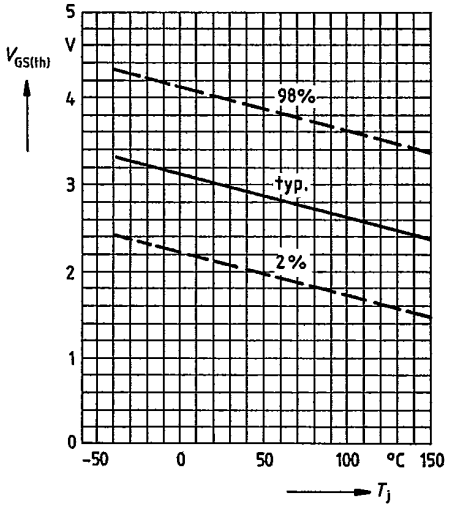
Drain-source on-state resistance
$R_{DS(on)} = f(T_j)$
parameter: I_D = 5,5A, V_{GS} = 10V
(spread)



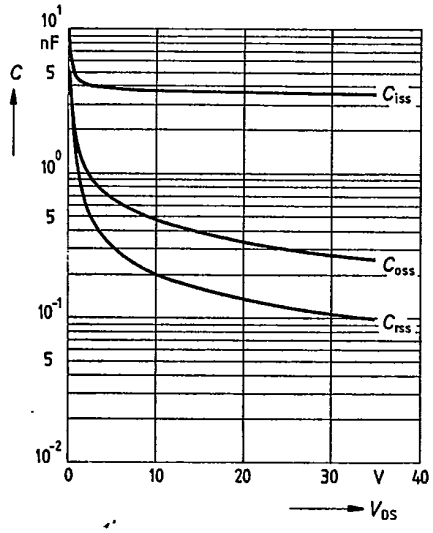
Typical transconductance $g_{fs} = f(I_D)$
parameter: 80 µs pulse test,
V_{DS} = 25V, T_j = 25 °C



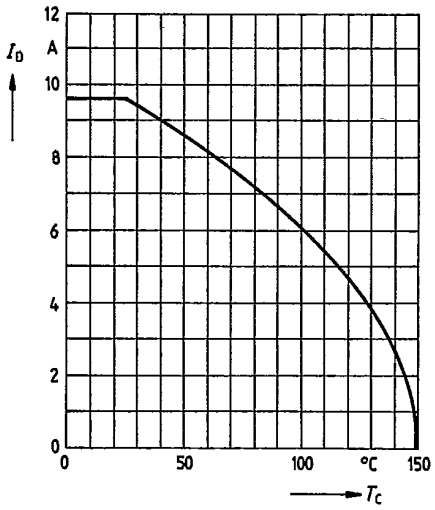
Gate threshold voltage $V_{GS(th)} = f(T_j)$
parameter: $V_{DS} = V_{GS}$, I_D = 1mA
(spread)



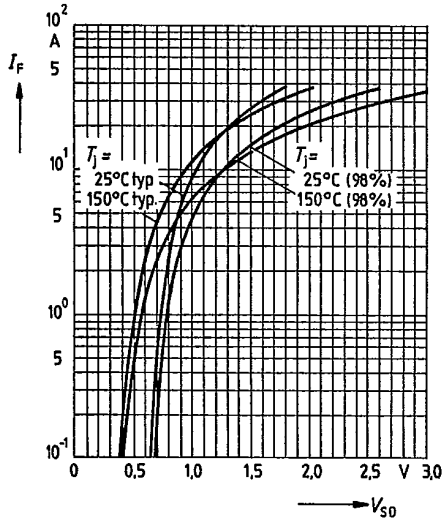
Typical capacitances $C = f(V_{DS})$
parameter: $V_{GS} = 0$, $f = 1$MHz



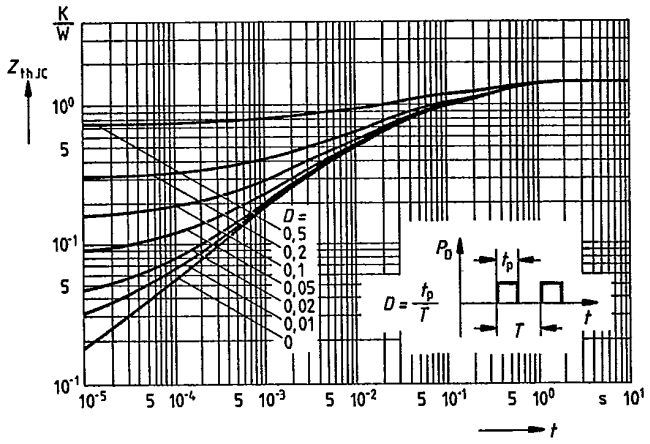
Continuous drain current $I_D = f(T_C)$
parameter: $V_{GS} \geq 10$V



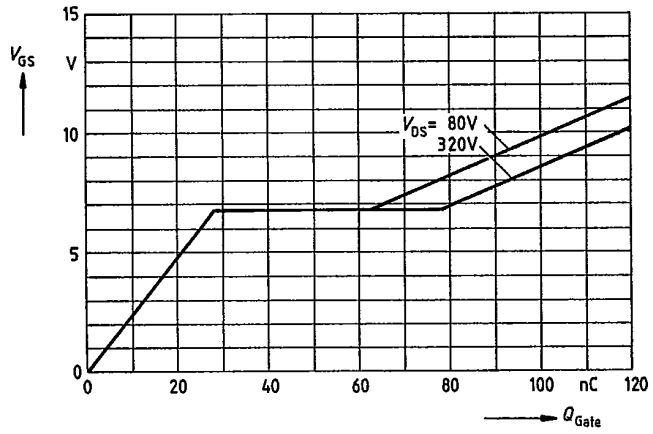
Forward characteristic of reverse diode
$I_F = f(V_{SD})$
parameter: T_j, $t_p = 80$ µs
(spread)



Transient thermal impedance $Z_{thJC} = f(t)$
parameter: $D = t_p / T$



Typical gate-charge $V_{GS} = f(Q_{Gate})$
parameter: $I_{D\,puls} = 17{,}3A$



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