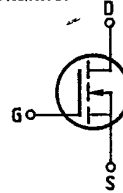


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Main ratings

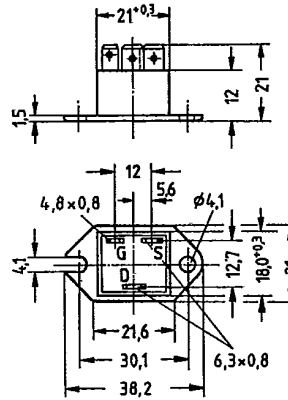
Drain-source voltage $V_{DS} = 400\text{ V}$
 Continuous drain current $I_D = 9,6\text{ A}$
 Drain-source on-resistance $R_{DS(on)} = 0,4\ \Omega$

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
BUZ 67	C67078-A1610-A2



Dimensions in mm

Maximum ratings

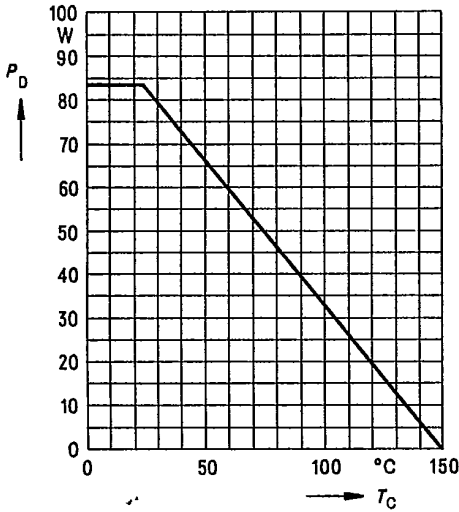
Description	Symbols	Ratings	Units	Conditions
Drain-source voltage	V_{DS}	400	V	
Drain-gate voltage	V_{DGR}	400	V	$R_{GS} = 20\text{ k}\Omega$
Continuous drain current	I_D	9,6	A	$T_C = 25\text{ }^\circ\text{C}$
Pulsed drain current	I_{Dpuls}	38	A	$T_C = 25\text{ }^\circ\text{C}$
Gate-source voltage	V_{GS}	± 20	V	
Max. power dissipation	P_D	83,3	W	$T_C = 25\text{ }^\circ\text{C}$
Operating and storage temperature range	T_j T_{stg}	-40 ... +150	$^\circ\text{C}$	
Isolation test voltage	V_{is}	3500	Vdc ¹⁾	$t = 1\text{ min}$
DIN humidity category		F	-	DIN 40040
IEC climatic category		40/150/56	-	DIN IEC 68-1

Thermal resistance

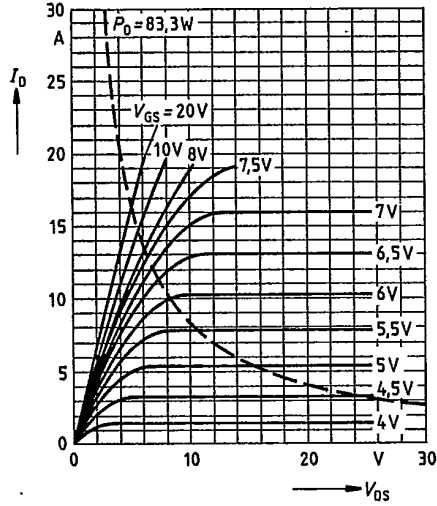
Chip - case | R_{thJC} | $\leq 1,5$ | K/W |

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

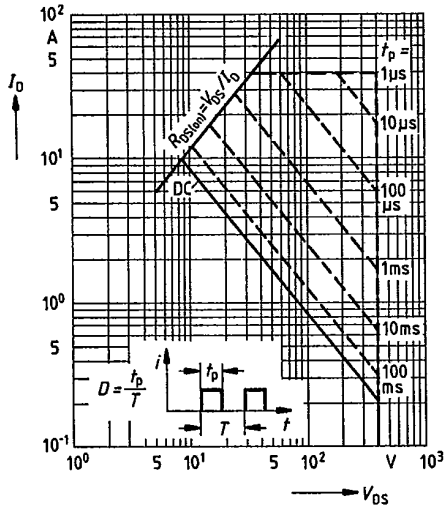
Power dissipation $P_D = f(T_C)$



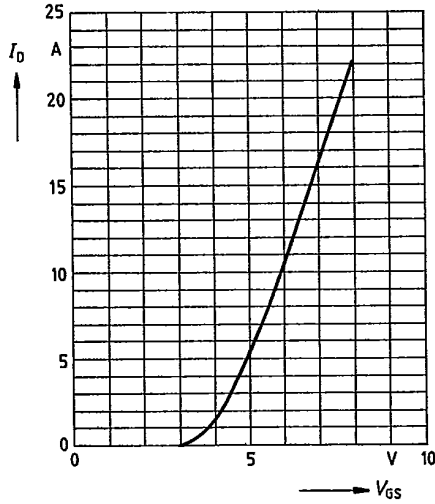
Typical output characteristics $I_D = f(V_{DS})$
 parameter: 80 μ s pulse test,
 $T_J = 25^\circ\text{C}$



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



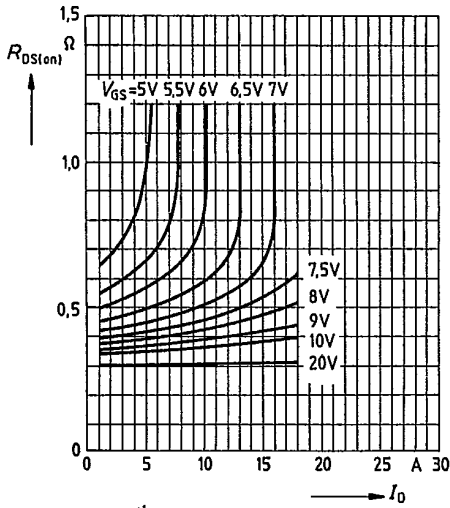
Typical transfer characteristic $I_D = f(V_{GS})$
 parameter: 80 μ s pulse test,
 $V_{DS} = 25\text{V}$, $T_J = 25^\circ\text{C}$



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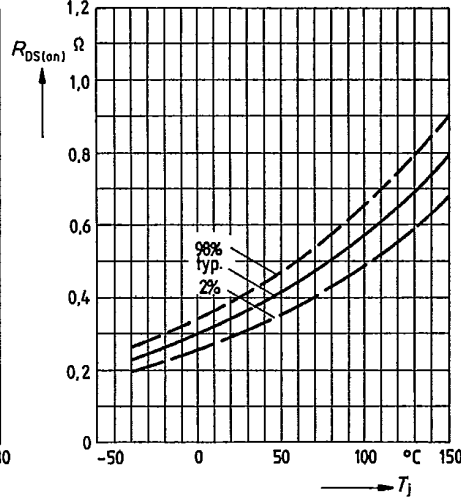
Typical drain-source on-state resistance

$R_{DS(on)} = f(I_D)$
parameter: $V_{GS} = 10V$; $T_J = 25^\circ C$



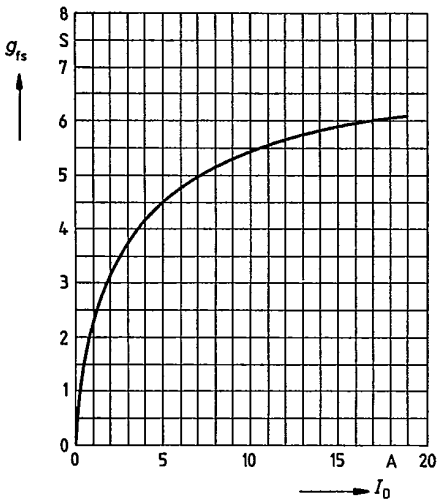
Drain-source on-state resistance

$R_{DS(on)} = f(T_J)$
parameter: $I_D = 5.5A$, $V_{GS} = 10V$
(spread)



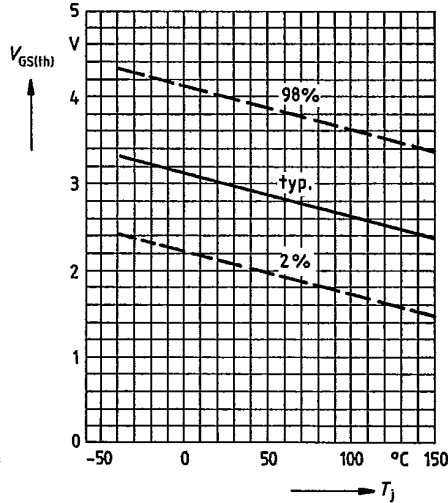
Typical transconductance $g_{fs} = f(I_D)$

parameter: 80 μs pulse test,
 $V_{DS} = 25V$, $T_J = 25^\circ C$

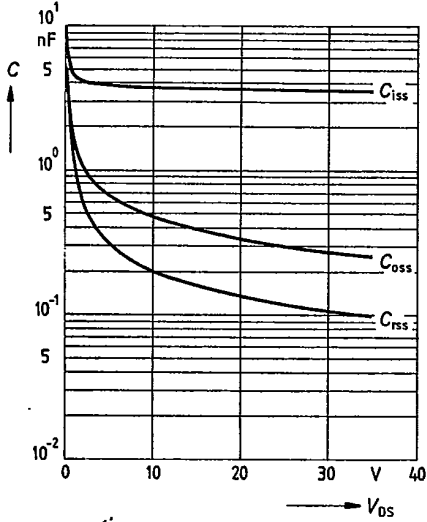


Gate threshold voltage $V_{GS(th)} = f(T_J)$

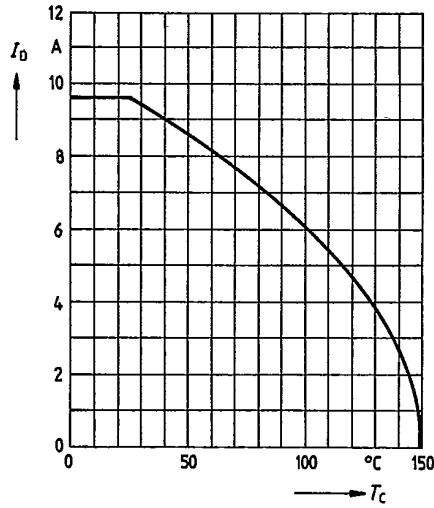
parameter: $V_{DS} = V_{GS}$, $I_D = 1mA$
(spread)



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

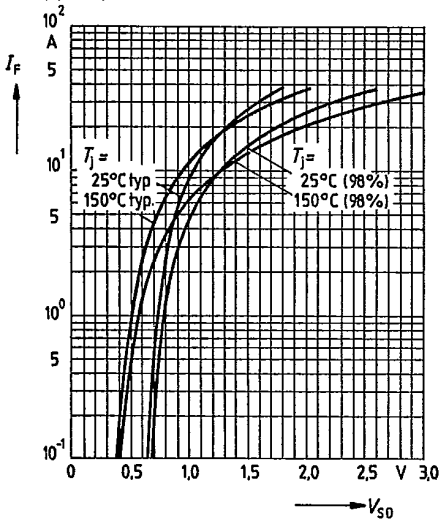


Continuous drain current $I_D = f(T_C)$
 parameter: $V_{GS} \geq 10\text{V}$

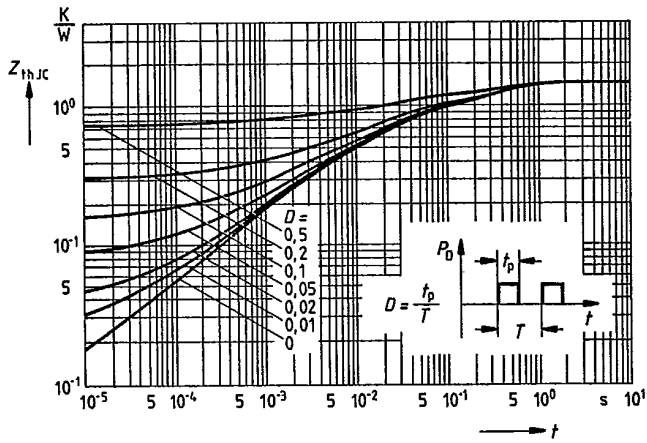


Forward characteristic of reverse diode

$I_F = f(V_{SD})$
 parameter: $T_j, t_p = 80 \mu\text{s}$
 (spread)



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



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

