

2SK1197

Silicon N-Channel enhanced MOS FET

HITACHI

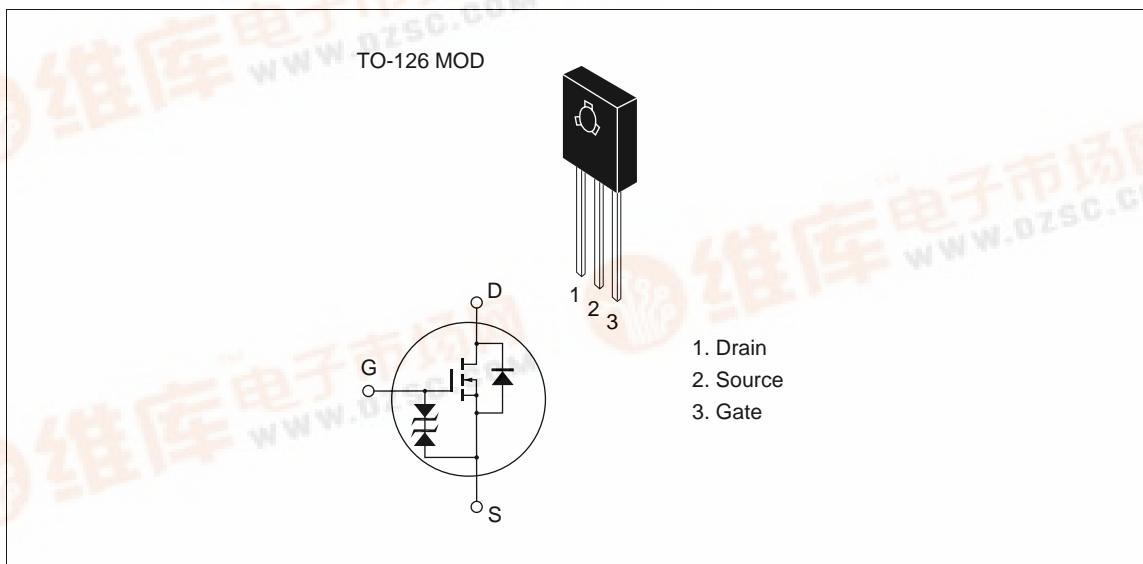
Application

High frequency amplifier

Features

- High endurance capability against static electrical breakdown ($C = 200\text{pF}$)
 - Between Gate from Source : 500 V Typ
 - Between Drain from Source : 1000 V Min, 1500 V Typ
- Wide forward transfer admittance
 $|y_{fs}| = 150 \text{ mS Typ}$
- High breakdown voltage $V_{DSS} = 100\text{V}$
- Small output capacitance ($C_{oss} \leq 10 \text{ pF}$)

Outline



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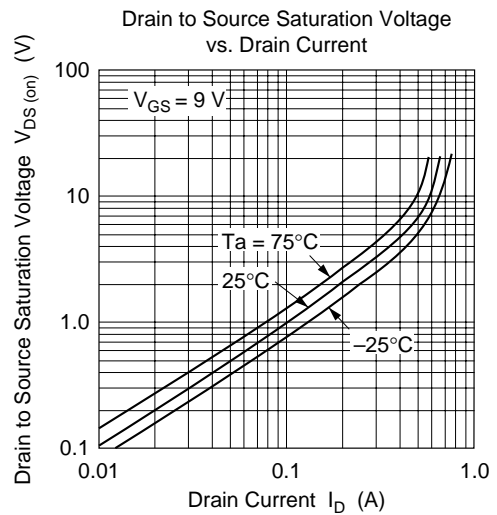
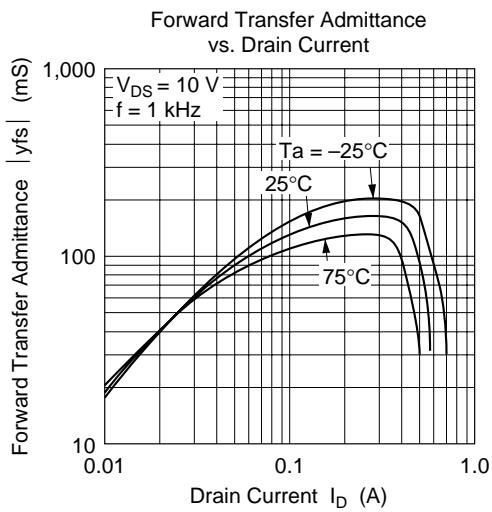
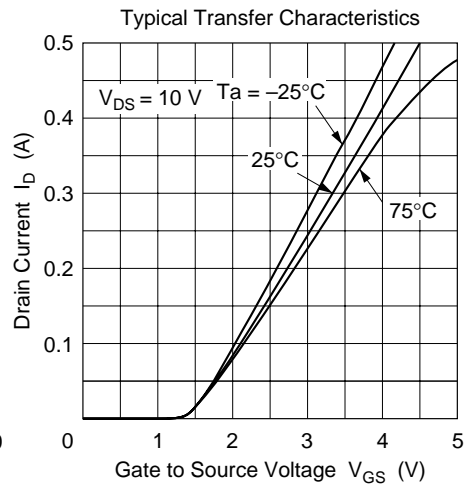
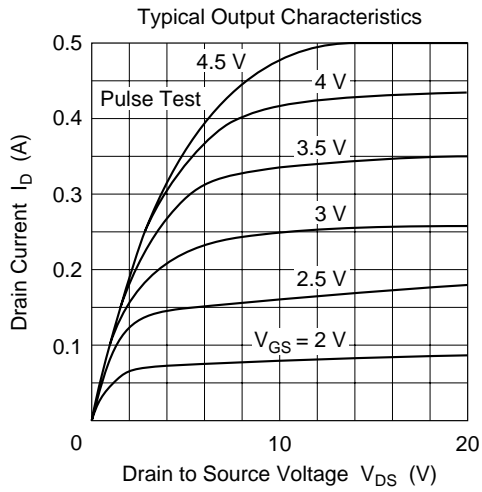
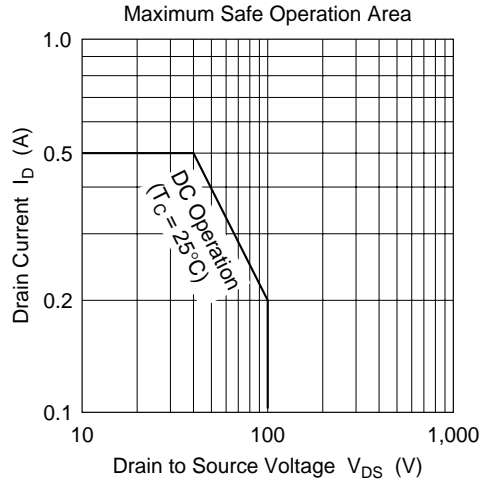
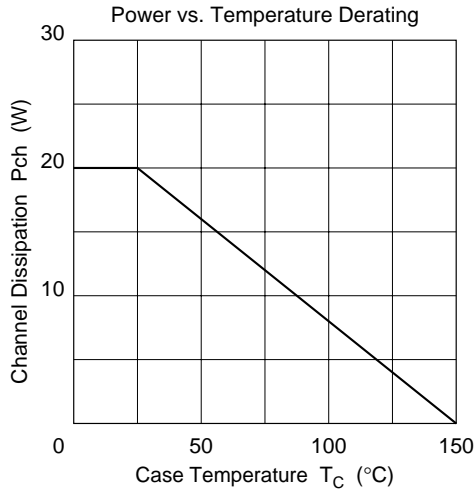
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	100	V
Gate to source voltage	V _{GSS}	±9	V
Drain current	I _D	0.5	A
Drain peak current	I _{D(pulse)}	1.0	A
Channel dissipation	Pch	1.25	W
Channel dissipation	Pch* ¹	20	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

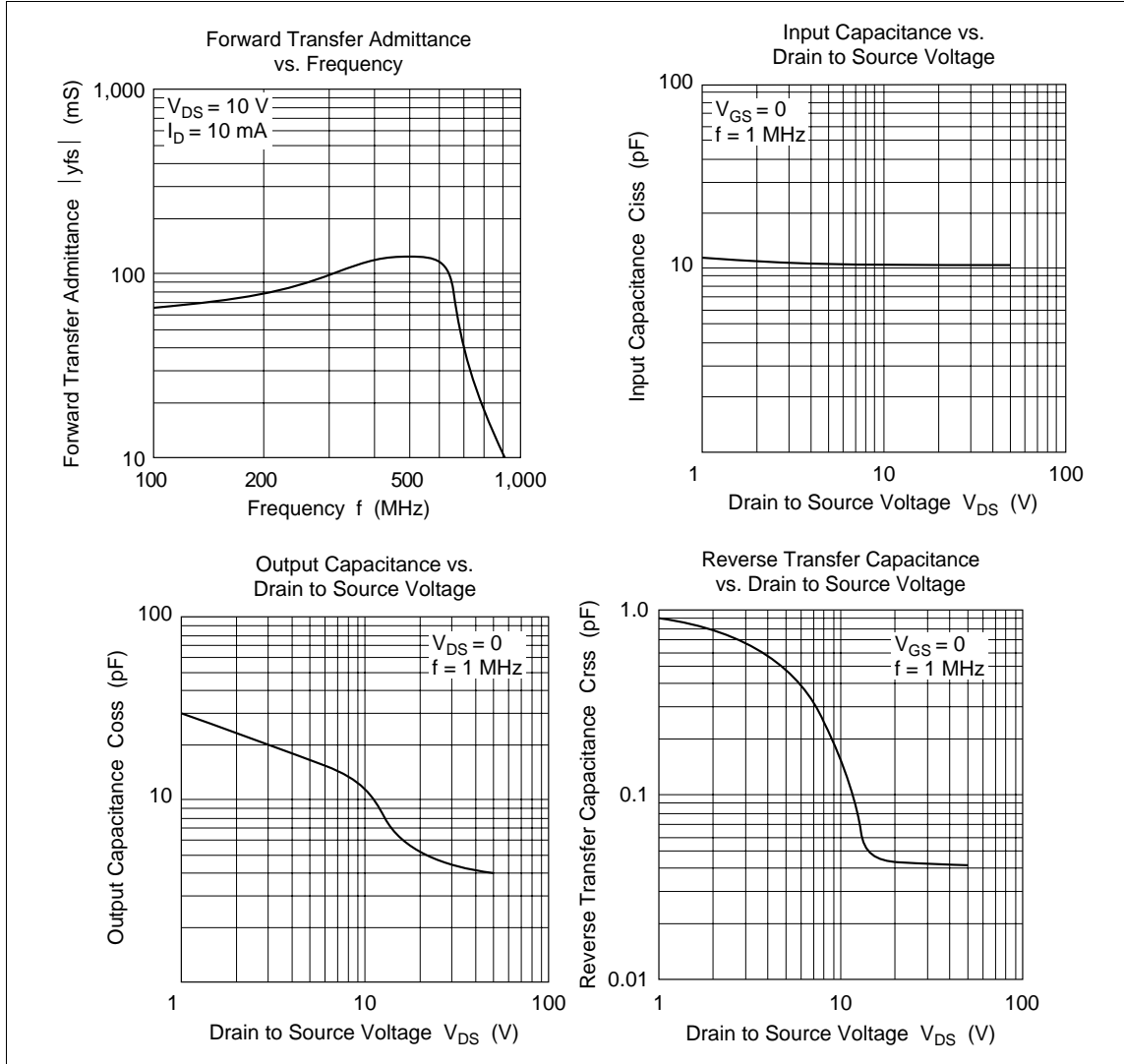
Notes 1. Value at T_c = 25°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain to source breakdown voltage	V _{(BR)DSS}	100	—	—	V	I _D = 1 mA, V _{GS} = 0
Gate to source breakdown voltage	V _{(BR)GSS}	±9	—	—	V	I _G = ±1 mA, V _{DS} = 0
Zero gate voltage drain current	I _{DSS}	—	—	0.1	mA	V _{DS} = 80 V, V _{GS} = 0
Gate to source cutoff voltage	V _{GS(off)}	0.3	—	1.8	V	I _D = 1 mA, V _{DS} = 10 V
Drain to source on voltage	V _{DS(on)}	—	—	5.0	V	I _D = 0.2 A, V _{GS} = 9 V
Forward transfer admittance	y _{fs}	100	150	—	mS	I _D = 0.3 A, V _{DS} = 10 V
Input capacitance	C _{iss}	—	10	—	pF	V _{DS} = 50 V, V _{GS} = 0,
Output capacitance	C _{oss}	—	4	10	pF	f = 1 MHz



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