
2SK1197

Silicon N-Channel enhanced MOS FET

HITACHI

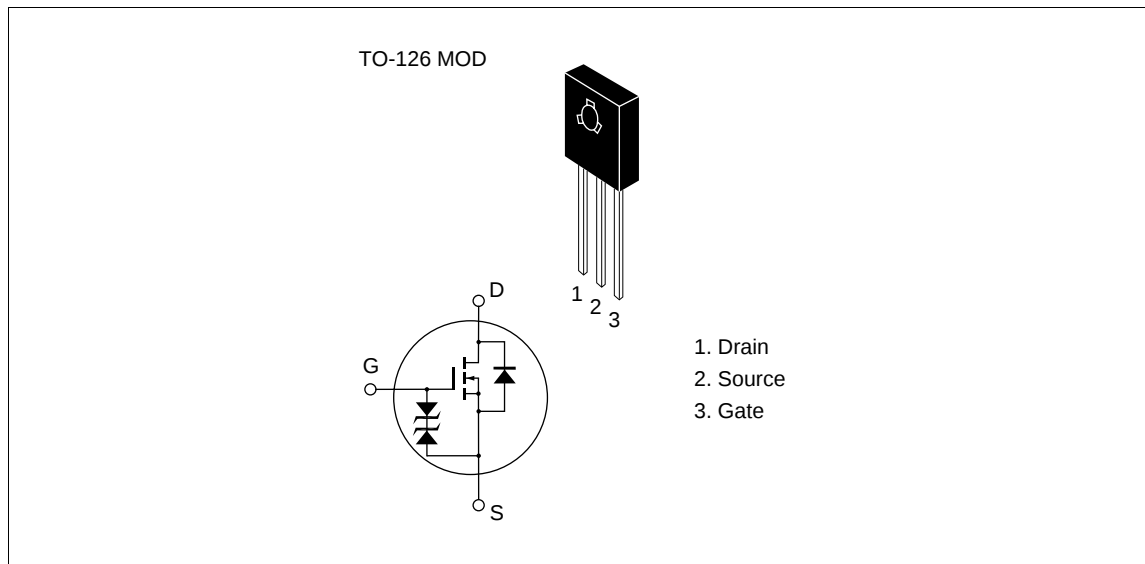
Application

High frequency amplifier

Features

- High endurance capability against static electrical breakdown (C = 200pF)
 - 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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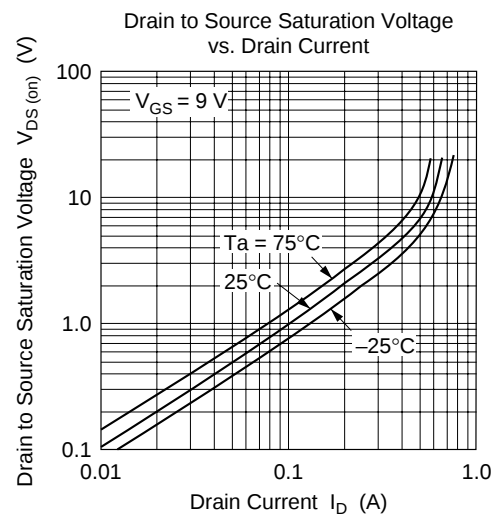
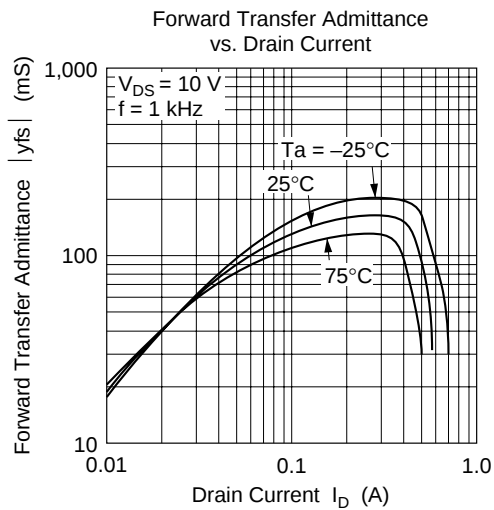
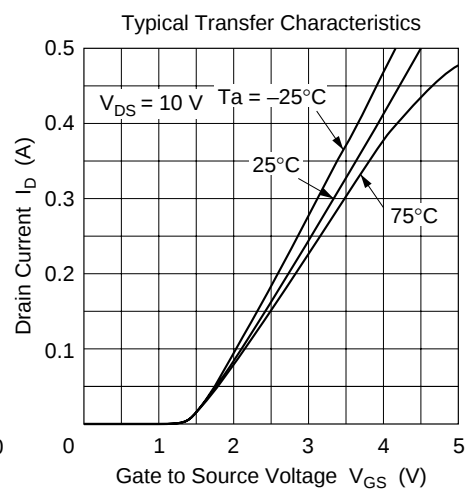
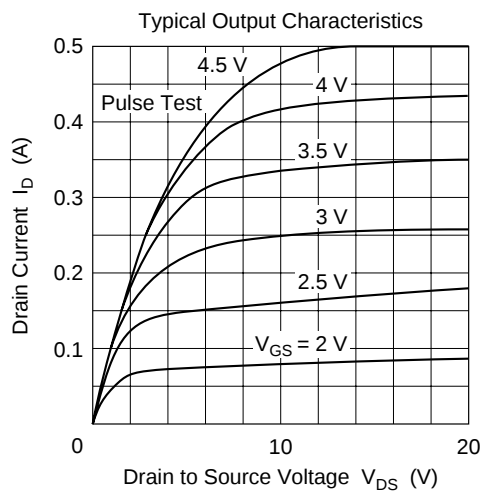
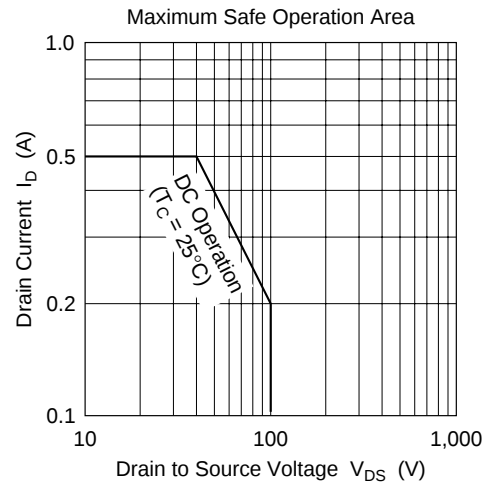
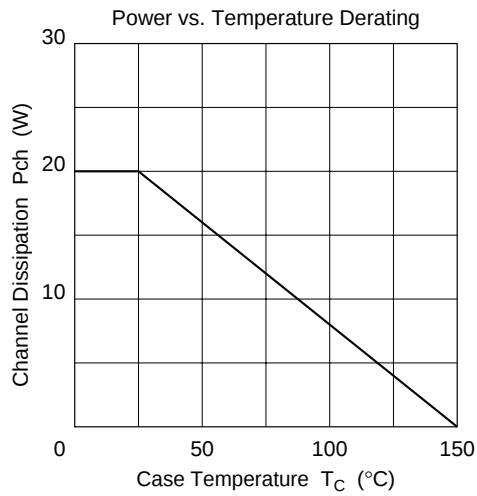
Absolute Maximum Ratings (Ta = 25°C)

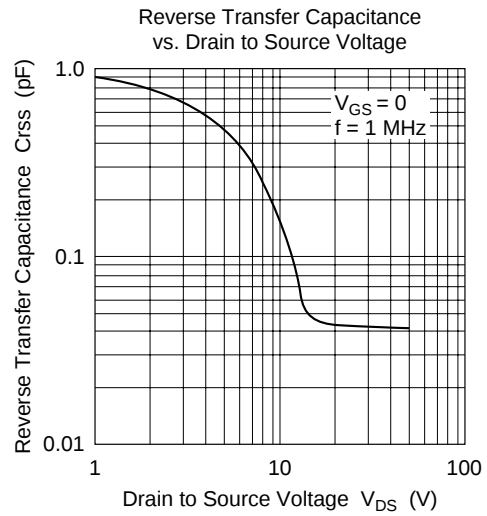
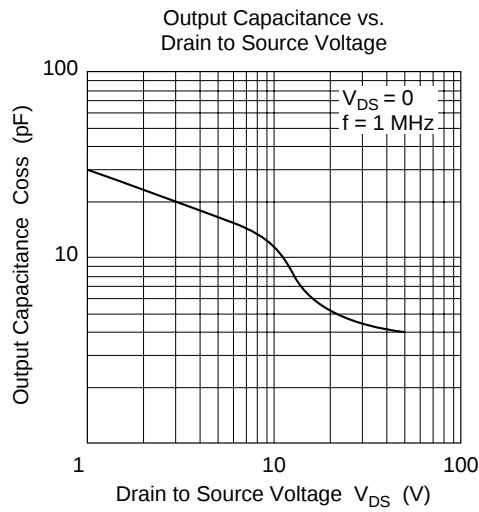
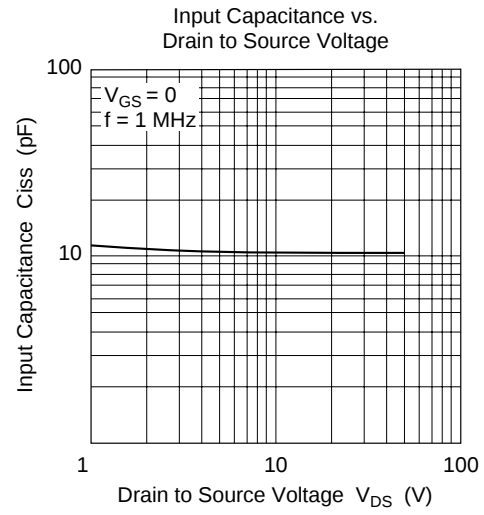
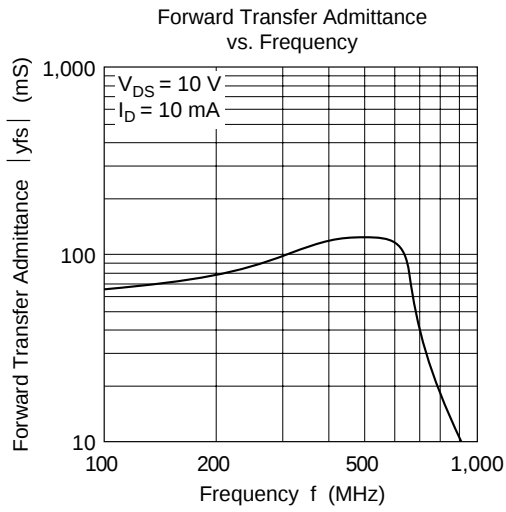
Item	Symbol	Ratings	Unit
Drain to source voltage	V_{DSS}	100	V
Gate to source voltage	V_{GSS}	± 9	V
Drain current	I_D	0.5	A
Drain peak current	$I_{D(pulse)}$	1.0	A
Channel dissipation	Pch	1.25	W
Channel dissipation	Pch* ¹	20	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

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	$I_D = 1 \text{ mA}$, $V_{GS} = 0$
Gate to source breakdown voltage	$V_{(BR)GSS}$	± 9	—	—	V	$I_G = \pm 1 \text{ mA}$, $V_{DS} = 0$
Zero gate voltage drain current	I_{DSS}	—	—	0.1	mA	$V_{DS} = 80 \text{ V}$, $V_{GS} = 0$
Gate to source cutoff voltage	$V_{GS(off)}$	0.3	—	1.8	V	$I_D = 1 \text{ mA}$, $V_{DS} = 10 \text{ V}$
Drain to source on voltage	$V_{DS(on)}$	—	—	5.0	V	$I_D = 0.2 \text{ A}$, $V_{GS} = 9 \text{ V}$
Forward transfer admittance	$ y_{fs} $	100	150	—	mS	$I_D = 0.3 \text{ A}$, $V_{DS} = 10 \text{ V}$
Input capacitance	Ciss	—	10	—	pF	$V_{DS} = 50 \text{ V}$, $V_{GS} = 0$,
Output capacitance	Coss	—	4	10	pF	f = 1 MHz





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