

SILICON MOS N-CHANNEL POWER TRANSISTOR 600 W, up to 80 MHz, Enhancement Mode

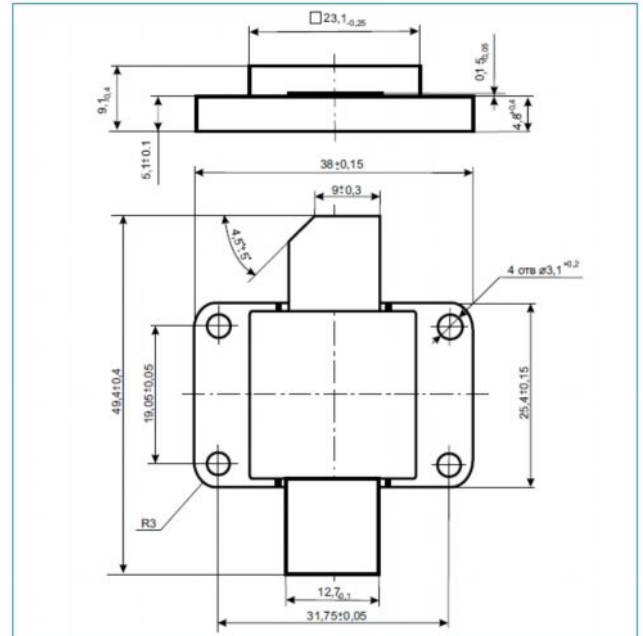
The silicon MOS transistor is designed for professional transmitter applications in the HF frequency range.

Features:

- Performance at 30 MHz, 50 Vdc
- Power Gain: 14 dB Min
- Output Power: 600 W
- Efficiency: 50 % Min

Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Drain-Source Voltage	V_{DSS}	125	V_{DC}
Drain Current-Continuous	I_D	60	A_{DC}
Gate-Source Voltage	V_{GS}	± 40	V_{DC}
Operation Junction Temperature	T_j	$-65 \div +200$	$^{\circ}C$
Storage Temperature Range	T_{STG}	$-65 \div +150$	$^{\circ}C$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.18	$^{\circ}C/W$
Total Power Dissipation	P_D	972	W



Case KT-102-1

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage ($I_{DS}=60$ mA, $V_{GS}=0$ V)	$V_{(BR)DSS}$	120	—	—	V_{DC}
Gate-Source Leakage Current ($V_{GS}=40$ V, $V_{DS}=0$ V)	I_{GSS}	—	—	1	μA_{DC}
Zero Gate Voltage Drain Leakage Current ($V_{DS} = 50$ V, $V_{GS}=0$ V)	I_{DSS}	—	—	50	mA_{DC}
Gate Threshold Voltage ($V_{DS} = 10$ V, $I_D = 200$ mA)	$V_{GS(TH)}$	2	—	5	V_{DC}
Forward Transconductance ($V_{DS} = 10$ V, $I_D = 20$ A)	G_{FS}	9	10	—	mhos
Input Capacitance ($V_{DS} = 50$ V, $V_{GS}=0$ V, $f = 1$ MHz)	C_{ISS}	—	2000	—	pF
Output Capacitance ($V_{DS} = 50$ V, $V_{GS}=0$ V, $f = 1$ MHz)	C_{OSS}	—	850	—	pF
Reverse Transfer Capacitance ($V_{DS} = 50$ V, $V_{GS}=0$ V, $f = 1$ MHz)	C_{RSS}	—	78	—	pF
Power Gain ($V_{DS} = 50$ V, $P_{OUT} = 600$ W, $I_{DQ} = 500$ mA, $f = 30$ MHz)	G_p	14	18	—	dB
Drain Efficiency ($V_{DS} = 50$ V, $P_{OUT} = 600$ W, $I_{DQ} = 500$ mA, $f = 30$ MHz)	η_D	50	60	—	%

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Specification is subject to change without notice