

2N5484, 2N5485, 2N5486

N-Channel Silicon Junction Field-Effect Transistor

• VHF/UHF Amplifiers

Absolute maximum ratings at $T_A = 25^\circ\text{C}$

Reverse Gate Source Voltage	- 25 V
Reverse Gate Drain Voltage	- 25 V
Continuous Device Power Dissipation	360 mW
Power Derating	3.27 mW/°C

At 25°C free air temperature:

Static Electrical Characteristics

		2N5484		2N5485		2N5486		Process NJ26	
		Min	Max	Min	Max	Min	Max	Unit	Test Conditions
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	- 25		- 25		- 25		V	$I_G = 1\ \mu\text{A}, V_{DS} = 0\text{V}$
Gate Reverse Current	I_{GSS}		- 1		- 1		- 1	nA	$V_{GS} = - 20\text{V}, V_{DS} = 0\text{V}$
			- 0.2		- 0.2		- 0.2	μA	$V_{GS} = - 20\text{V}, V_{DS} = 0\text{V}$ $T_A = 100^\circ\text{C}$
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 0.3	- 3	- 0.5	- 4	- 2	- 6	V	$V_{DS} = 15\text{V}, I_D = 10\ \text{nA}$
Drain Saturation Current (Pulsed)	I_{DSS}	1	5	4	10	8	20	mA	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$

Dynamic Electrical Characteristics

Forward Transconductance	$R_e(Y_{fs})$	2500						μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 100\ \text{MHz}$
				3000		3500			μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$
Common Source Forward Transadmittance	Y_{fs}	3000	6000	3500	7000	4000	8000	μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 1\ \text{kHz}$
Input Admittance	$R_e(Y_{is})$		100					μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 100\ \text{MHz}$
					1000		1000		μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$
Output Conductance	$R_e(Y_{os})$		75					μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 100\ \text{MHz}$
					100		100		μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$
Common Source Output Admittance	Y_{os}		50		60		75	μS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 1\ \text{MHz}$
Common Source Input Capacitance	C_{iss}		5		5		5	pF	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 1\ \text{MHz}$
Common Source Reverse Transfer Capacitance	C_{rss}		1		1		1	pF	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 1\ \text{MHz}$
Output Capacitance	C_{oss}		2		2		2	pF	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$	$f = 1\ \text{MHz}$

TO-226AA Package

Dimensions in Inches (mm)

Pin Configuration

1 Drain, 2 Source, 3 Gate

Surface Mount

SMP5484, SMP5485, SMP5486



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